

CLARK REPORTING (510) 486-0700

ENVIRONMENTAL SAMPLING PROJECT TASK FORCE  
LAWRENCE BERKELEY NATIONAL LABORATORY

HEARING

WEDNESDAY, JANUARY 17, 2001

REPORTER'S TRANSCRIPT OF PROCEEDINGS  
BY: ELIZABETH A. WILLIS AND JOHANNA FILDS

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CLARK REPORTING

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BERKELEY, CALIFORNIA 94704

(510) 486-0700

A P P E A R A N C E S

Meeting Facilitators: Sheryllyn Dougherty, Patricia Duffy

Task Force Members Present: David Miller, Evelyn Fisher,  
Michael Rochette, Pamela Sihvola, Paul Lavelly, Edgar Bailey,  
Mike Bandrowski, Pamela Evans, Sue Markland-Day, Geoff  
Fiedler, Dick Nolan, David McGraw, Keith Matthews, Fran  
Packard.

Presenters: Pamela Sihvola, David McGraw.

---oOo---

1 6:42 p.m.

2

3

4 BE IT REMEMBERED that on January 17 2001, commencing  
5 at the hour of 6:42 p.m. at 2345 Channing Way, Berkeley,  
6 California, ELIZABETH A. WILLIS, a duly qualified Certified  
7 Shorthand Reporter, License No. 12155, in and for the State  
8 of California, reported the following proceedings.

9 ---oOo---

10 MS. DOUGHERTY: We would like to call the meeting to  
11 order. If we could have all the Task Force members'  
12 attention for a few minutes. Let's start with -- we would  
13 like to have Jeanne go ahead and read the names please for  
14 the names that have been drawn.

15 MS. GERSTLE: The first three speakers, the first  
16 one is Marion Fulk, James Cunningham, and the last one is  
17 Stephanie Van Zandt Nelson.

18 MS. VAN ZANDT NELSON: Good evening. I am Stephanie  
19 Van Zandt Nelso. Marion Fulk cannot be be here this evening.  
20 He asked me to read a letter for him. This is to the  
21 Environmental Sampling Project Task Force regarding: "To  
22 check for no evidence of harm from tritium/radioactive  
23 hydrogen."

24 There should be a copy of this letter for each of you.  
25 "In order to assess the health risks and damage due to

1 exposure to tritium, radioactive hydrogen, three blood tests  
2 should be performed on the director of the tritium labeling  
3 facility, local workers, and nearby residents. The director  
4 at the Lawrence Hall of Science and workers there should also  
5 be tested since they are downwind.

6       These tests are: 1) Check the white blood cells for the  
7 presence of micronuclei. 2) Check the red blood cells for  
8 glycophorin-A molecule change. 3) Chromosome painting. The  
9 presence of micronuclei in white blood cells indicates the  
10 loss of proper DNA repair processes, leading to increased  
11 cancer risks and other health problems. Micronuclei is one  
12 of the most useful tests for potential and actual cancer and  
13 other health risks. Genetic modification of the  
14 glycophorin-A molecules on the surface of the red blood cells  
15 is also an indicator of DNA change -- damage.

16       This method was used in a study by the Lawrence Livermore  
17 National Laboratory on Japanese exposed to nuclear bombs.  
18 The study on DNA damage indicated that after 40 years the DNA  
19 code for making that molecule did not get repaired. The  
20 damage was worse the closer victims were to ground zero.

21       UC-LBNL could preempt epidemiological studies that would  
22 search and compile the number of dead, deformed, and diseased  
23 bodies that may or may not be correlated with some possible,  
24 real, or known hazard such as tritium. The importance of  
25 these simple tests, which you can do, might ease the concern

1 of the public. Marion Fulk, retired staff scientist LLNL."

2 And copies of this letter have been sent to  
3 Dr. Rosalie Burtel, Gene Endez, KC, the Committee to Minimize  
4 Toxic Waste, the director of the Lawrence Berkeley Lab, the  
5 director of the Lawrence Hall of Science, the Director of the  
6 Lawrence Livermore Laboratory, Pamela Evans, Dr. John  
7 Goffman, Dr. Jay Gould, the State EPA -- that would be  
8 Mr. Bailey -- TriValley Cares, the UC Berkeley Chancellor,  
9 the UC President, and Marilyn Underwood.

10 On the back of this letter are the references for the  
11 tests that he referred to. Thank you.

12 MS. DUFFY: You want to call the next name.

13 MR. CUNNINGHAM: Paul Lavelly, Task Force Member from  
14 University of California, made some valuable statements in  
15 the meetings. One was made at the Task Force meeting on  
16 December 13, at the Lab facilities. He said he was unhappy  
17 at being present and that he was not a volunteer. He was  
18 working for the university and felt he had to be at the  
19 meeting. He complained about the lack of an agenda prior to  
20 the meeting and wanted to know who was in charge and to whom  
21 he could address his questions. He also asked that the  
22 meeting be rescheduled so that the entire Task Force could  
23 see the maps and hear the details of the meeting. He said it  
24 must be a public process.

25 The minutes of this meeting showed a confusion of those

1 eight members present as to agenda and purpose. There was  
2 much discussion about beginning the sampling process now.  
3 Comments were made that understanding the plan was too  
4 complicated for many of the people on the Task Force. I  
5 believe that understanding all of the published figures is  
6 not necessary. Many questions I have can be answered by yes  
7 or no. Remember the citizens of Berkeley, the City Council,  
8 and the Mayor of Berkeley have been lied to publically by lab  
9 scientists.

10 Two questions I have are: 1) Are the figures and  
11 documents being given to us by the Laboratory correct and  
12 complete? 2) Are the locations for the sampling those  
13 places where many scientists say the tritium concentrations  
14 could exist?

15 At another Task Force meeting Mr. Lavelly said he was  
16 tired of nothing being accomplished and done in the meeting  
17 and questioned how the meetings were being run. To the  
18 facilitators I want to say that if you really want  
19 information to be gathered and understood, do the following:  
20 allow questioners to ask follow-up questions. Do not limit  
21 them to one question. Ask the questioner, "Did you get an  
22 answer to your question?"

23 With regard to that, I would like to ask the following  
24 questions: Why was the December 13th meeting called so  
25 hastily, and by whom was it called? Why was the meeting held

1 in a guarded security location? Since I get an advanced  
2 notice of every other Task Force meeting, why was I not  
3 invited to attend this one?

4 MS. GERSTLE: Stephanie Van Zandt Nelson.

5 MS. VAN ZANDT NELSON: I am Stephanie Van Zandt  
6 Nelson and I am the past President of the Association for  
7 Women Geoscientists. It is an international organization. I  
8 worked as a staff scientist at the Lawrence Berkeley Lab for  
9 five years and the Lawrence Livermore Laboratory on the  
10 Superfund project for two years. I am going to read some  
11 comments from a letter I wrote regarding the Yucca Mountain  
12 Project, but it certainly applies here.

13 "It has been in the interest of the nuclear weapons and  
14 nuclear power industries to downplay the health effects of  
15 radiation. These industries are initiating the death crisis  
16 of our species and the disposal of high-level radioactive  
17 waste will add to the rising death toll. It is a violation  
18 of human rights to cause an unwanted attack on a person or  
19 their reproductive capacity.

20 B) There are no safe levels of radiation exposure for  
21 living organisms. Dr. Rosalie Burtel has calculated the real  
22 numbers of victims of the nuclear age in the Ecologist,  
23 Volume 29, Number 7, November 1999. During the past 50 years  
24 from weapons testing she reports 376 million cancers, 235  
25 million genetic effects, and 587 million teratogenic effects,

1 which total 1,200 million people affected.

2 Electricity production from nuclear plants during 1943 to  
3 2000 may have led to another million victims, with as much as  
4 20 percent resulting in premature cancer deaths. Not  
5 officially counted are as many as 500 million stillbirths  
6 from radiation exposure while in the womb during that time  
7 period."

8 And it is critical that the University of California take  
9 the tritium contamination and the exposure to the community  
10 and workers very seriously. Dr. Fulk has proposed a very  
11 simple blood test to determine whether there is genetic  
12 damage or not, and if so the university needs to take action.  
13 Thank you.

14 MS. GERSTLE: Eric Arens, Susan Rodriguez, and Jene  
15 Bernardi will be the next three.

16 MR. ARENS: Hi, I am Eric Arens and I would just  
17 like to say the same thing that I said at the meeting a month  
18 or two ago. And that is that the stack ought to get taken  
19 down. I realize I am not talking about the same thing that  
20 most of you are that has to do with monitoring and seeing  
21 what has happened in the past. But one thing that ought to  
22 be done is that the stack ought to be taken down because no  
23 other place dumps its waste off at the boundary of the  
24 institution over a fence on the downwind side of the  
25 institution.

1        If LBL is working on cleaning the facility up -- and  
2        different people say different things. Some people say that  
3        the stack will be taken out now, and other people say that  
4        that is not the case. If it is not the case then obviously  
5        the place ought to get cleaned up more. But anyway, they  
6        need to work on cutting down on the amount of tritium coming  
7        out ought not to go on until the stack can be taken down.

8        And part of that is monitoring. The monitors have to get  
9        better, and particularly the Overhoff Monitor that is in the  
10       stack now. The Overhoff Monitor ought to be put in whatever  
11       pipes come out of that facility and badly there will be some  
12       pipes coming out of the building someplace or other.

13       And so anyway, better monitoring and cleaning things up  
14       -- continuous monitoring I should say is better monitoring  
15       and -- because if one did all that it would certainly cut the  
16       amount of tritium down. And I think a lot of people would  
17       feel better about it, maybe not totally happy. But that is a  
18       concrete step that could be taken and it is a pretty obvious  
19       step also. So anyway, thank you.

20                MS. RODRIGUEZ: My name is Susan B. Rodriguez and I  
21       come as an engineer, as a social civil rights activist, and  
22       also as a concerned citizen. Again I watch all of you eat  
23       your food at one of these meetings, and I need to remind you  
24       always that as you eat your food remember the people that are  
25       beaten at our borders, poisoned in our field, brought you



1 this food, and we continue to this day to poison the very  
2 people that feed us. Everything we eat except meat, and then  
3 we poison animals.

4 What is important and I constantly stress is the fact  
5 that all of you in this room, everyone, you and us, we are  
6 all connected, and there is nothing we can do to try to  
7 disconnect ourselves. What is really sad is the fact that as  
8 you continue to poison this community you continue to know --  
9 you have full knowledge of what is being done. You poison  
10 your own children. You poison yourself. Shame on you.

11 I was told recently that a couple of years ago that the  
12 University of California and also the National Labs hired a  
13 cement company. And the owner told me that when he came here  
14 he thought he was putting a foundation or a pad for the  
15 facility. Instead he was directed to take the chute, put it  
16 into the sewer system, and he was told that they had a  
17 radiation leak, and that particular sewer system had to be  
18 sealed.

19 I also would like to emphasize the fact that we are in a  
20 crisis now with PG&E. It is obvious, but what is really  
21 obvious is that there has never been any public participation  
22 in the decision making in their process. That is why they  
23 are failing now. As we all sit here in this room now and all  
24 of you sit at this table, remember those of us that are here.  
25 We are the public. We are also being poisoned. Why don't we

1 have participation in any of this decision making, including  
2 the fact that the last meeting was to be held secret. Who  
3 were you hiding from? And then I go, before I finish, to  
4 legalities of this under the International Law, under the  
5 Nuremberg principles it is against the law for any country,  
6 nation to prepare for destruction upon innocent lives,  
7 villages, or townships. We are all that here, not only in  
8 Berkeley, but the groundwater goes all the way to the bay.  
9 My God, open your eyes before it is too late or before the  
10 lights turn out, which is going to be real soon. And then  
11 after that, then as we all sit with cancer and hospice is  
12 taking care of all of us, what a horrible future we have left  
13 to our real future, the children. Shame on you.

14 MS. DUFFY: Your time is up.

15 MS. RODRIGUEZ: One minute, dear. We can take that  
16 second for life. And then, again, I leave you with the idea  
17 that this is a human issue, not about economics.

18 (Applause)

19 MS. BERNARDI: I am Gene Bernardi co-chair of the  
20 Committee to Minimize Toxic Waste. And I would like the  
21 members of the Task Force to take a look around at the table.  
22 Who is sitting at the table? Who are the members of this  
23 Task Force? And I have taken a look at the transcripts and  
24 the attendance record. It isn't quite accurate because last  
25 time they listed three people who weren't at the meeting, so

1 I can't be sure of my statistics.

2       However, it appears that 12 of the regularly attending  
3 Task Force members who constitute 60 percent of the  
4 organizations invited to attend the Environmental Sampling  
5 Task Force -- 12 of these regularly attending make up 60  
6 percent of those invited here. Of these 12 representatives  
7 either have a blatant conflict of interest or they work for  
8 Lawrence Berkeley Laboratory, the Department of Energy, or  
9 the agencies that presumably regulate them.

10       No wonder the facilitators are able to say the majority  
11 wants to jump in and start sampling even before they have  
12 received the revised sampling plans. As you know, we are  
13 polled quite frequently. Sometimes I sit at the Task  
14 Force table. We are polled quite frequently and asked if we  
15 are ready to get started with that sampling. And come to  
16 find out that that happened before you even got some of the  
17 revised sampling plans, which we got just the other day a  
18 large stack of stuff with only three or four working days to  
19 look at it. And I know we all -- I am sure you all as I do  
20 -- have other things to do as well. And that is not all of  
21 the sampling plan yet. We still don't have the groundwater  
22 included, and the Air Sampling Revised Plan hasn't arrived  
23 yet.

24       Well, the other five representatives that attend  
25 regularly, just three were selected by LBNL to represent

1 grass roots organizations. One an environmental  
2 organization, that is us, the Committee to Minimize Toxic  
3 Waste, and just two neighborhood organizations. Of the  
4 remaining organizations I am only seeing the Berkeley Unified  
5 School District represented here once. Maybe he is here  
6 tonight, but I don't think so. And the building trades  
7 council representative has never shown up. The UC School of  
8 Public Health representative has been here, maybe half of the  
9 meetings. I don't think she is here tonight either.

10 So the 12 with agency obligations and/or blatant  
11 conflicts of interest actually make up 70 percent of the 17  
12 regularly attending members. When you poll this group on the  
13 sampling plan do you think you are fooling anybody that this  
14 is a community-based decision?

15 MS. DUFFY: Thank you. Your time is up.

16 MS. BERNARDI: Pardon?

17 MS. DUFFY: Your time is up.

18 MS. BERNARDI: My time is up? Well, six times three  
19 is 18, so there are two minutes left. And I wonder, is there  
20 anybody else that would like to speak?

21 MS. DUFFY: There is another card.

22 MS. GERSTLE: I am sorry. I am probably not going  
23 to pronounce this right because I can't read it, but I think  
24 it is Irmi Meindl.

25 MS. MEINDL: Hello, I am Irmi Meindl. And the

1 problem for me that I am seeing is that people mostly only  
2 think about their own generation. And what about thinking in  
3 terms of future generations? How would the newborn child be  
4 affected by the pollution, by the toxins placed into the  
5 environment in next generations? Also it may be said to be  
6 very minute pollution, but consider years and years of minute  
7 amounts of tritium being released, and don't forget all the  
8 other stuff that is being released. You may say, "Oh, the  
9 wind will blow it away." And what about the tritium that  
10 gets stuck in the trees, and in the soil, in the water, in  
11 the groundwater. And please don't think that tritium in  
12 groundwater would be okay as long as it is not in drinking  
13 water. It is really all connected.

14 What is it about science that it gets to go ahead  
15 polluting our environment so easily? Have we gotten so used  
16 to our earth being poisoned? Haven't we seen enough rise of  
17 cancer occurrences yet. Even President Clinton had a skin  
18 cancer removed they wrote today, but it doesn't make anyone  
19 think why this is happening. It is because connections are  
20 not being made, or -- is it because connections are not being  
21 made or has our mind already been programmed so much into  
22 details and not connecting and overviewing things anymore.

23 Hasn't it become clear that earlier or later we will get  
24 confronted again with the pollution that we have caused. Our  
25 existence on this planet as well as the existence of our

1 fellow creatures and future generations is more importance  
2 than science with all its research and will depend on us  
3 finding ways again to sustain life instead of continuing to  
4 poison it. And I sure will not let the Lab convince me that  
5 tritium is not harmful because it has already been proven  
6 that it is even in minute doses.

7 Like I said, earlier or later the truth will show, but  
8 why wait for more of this toxic substance to be released.  
9 The facility needs to close now.

10 (Applause)

11 MS. MEINDL: I don't know how much more our  
12 environment needs to be polluted with toxins. How many more  
13 people have to get cancer and weak immune system diseases  
14 before the human mind will say, "Enough now. " It makes me  
15 angry to see the responsible people from the Lawrence  
16 Berkeley Lab trying to get their plan passed by a subgroup  
17 with no mention of groundwater sampling, no mention in the  
18 last Task Force meeting that the Superfund sampling would be  
19 discussed, but rather the routine sampling, insufficient  
20 routine sampling.

21 A community member asked to put up rain gauges on the  
22 fence line next to the NTLF where you think they should be  
23 there, but was told the the analysis of the sampling would be  
24 too costly.

25 MS. DUFFY: Your time is up.

1 MS. MEINDL: We will not stop until this facility is  
2 closed. You can either waste more time, money -- by the way,  
3 it is our tax money -- energy in general, or you can just  
4 take care of things by closing the NTLF now.

5 MS. DUFFY: Thank you.

6 (Applause)

7 MS. DUFFY: Just a couple of housekeeping issues.  
8 One is that at the --

9 VOICE IN THE AUDIENCE: Is that the end, nobody else  
10 gets to speak now?

11 MS. DUFFY: No, at the end there is another public  
12 comment period.

13 VOICE IN THE AUDIENCE: Every time I come it happens  
14 and we get pushed way to the end.

15 MS. DUFFY: It is like that every week.

16 (Disturbance in the audience)

17 MS. DUFFY: The bathrooms are downstairs and we are  
18 going to take a break around 8:00, or whenever. We have two  
19 court reporters here tonight.

20 MS. DOUGHERTY: As many of you know, it has been  
21 very difficult for our court reporters to catch all that we  
22 are all saying. So we want to remind you again -- once again  
23 tonight -- to please speak slowly, speak one at a time, so  
24 that our court reporter can catch what you are saying. If  
25 you haven't spoken yet please introduce yourselves and say

1 your name, so she can catch it for the record. We would  
2 appreciate that tonight.

3 Also we would like to just let you know where we are.  
4 And I think right now we would like to regroup a little bit  
5 with the Task Force. I believe at the last Task Force  
6 meeting we heard many of you -- not all of you -- say that  
7 you were interested in moving forward in sampling, and on  
8 surface water, and vegetation.

9 MS. DUFFY: And soil and sediment --

10 MS. DOUGHERTY: -- and vegetation. There are a  
11 number of the presentations yet to be made on other media  
12 that David McGraw is going to do later this evening. So we  
13 will get to the media as discussed tonight. But many of you  
14 said you would like to get started with some kind of  
15 sampling. And there was a lot of confusion as is clear even  
16 from the public comment, I think, as to the purpose of the  
17 meeting that was called on December 13th.

18 There was a lot of confusion when folks got to the  
19 meeting. There was -- when people got there it was unclear  
20 as to what the meeting purpose was. And so --

21 (Disturbance in the audience)

22 MS. DOUGHERTY: The purpose of the meeting, as we  
23 talked about in the email we sent out to you guys, was to  
24 give people a chance to look in further detail at these maps  
25 that were not shown in --



1 MS. GEORGE: Would you please tell me why you didn't  
2 discuss sampling?

3 MS. DUFFY: No, we are not going to answer you now.  
4 We are asking you to be quiet.

5 (Disturbance in the audience)

6 MS. DOUGHERTY: The purpose of the meeting as was  
7 stated in the email to you Task Force members was that the  
8 meeting is being held in response to requests from some of  
9 the Task Force members at the last meeting to be able to see  
10 details of the proposed sampling. When Pat and I called you  
11 guys some of you --

12 (Disturbance in the audience)

13 MS. DOUGHERTY: When Pat and I called you guys --  
14 Ms. George, it would be very helpful if you could be quiet so  
15 we could address the Task Force.

16 MS. GEORGE: If you will address what the meeting  
17 was supposed to be about, when --

18 MR. WOOD: You need to be honest. You are being  
19 dishonest. You need to tell the truth about it.

20 MS. DUFFY: You all received emails, so you know  
21 what happened.

22 MS. SIHVOLA: I have not. Everybody knows I don't  
23 have email.

24 MS. DUFFY: We asked people to come purely for  
25 information because what we heard in the last Task Force

1 meeting was some people are more interested in details than  
2 others. And also when we called Task Force members some  
3 people felt they had so much information they didn't want any  
4 more. So we thought this was a good compromise. And so it  
5 was purely informative as you know. It was not a  
6 decision-making body, as you all know. And we would like to  
7 report on what happened at that meeting. So why don't you  
8 tell them what happened.

9 (Disturbance in the audience)

10 MS. DOUGHERTY: There was a certain memo sent out  
11 and posted on the Web that was a summary of what took place  
12 in that meeting. I have it too.

13 (Disturbance in the audience)

14 MS. DOUGHERTY: This is not helpful, Ms. George.

15 MS. GEORGE: I don't care if it is helpful. You are  
16 involved in illegal work, ma'am. I don't know whether that  
17 is what they teach you --

18 MS. DOUGHERTY: Ms. George, would you please be  
19 respectful to the rest of the Task Force members?

20 (Disruption in the audience)

21 MS. RODRIGUEZ: You want her to respect you? We  
22 have a voice. We demand it. Our children are dying. We are  
23 going to disrupt this meeting, and if you continue we will  
24 shut you down like we did in Washington. And if you think we  
25 are playing -- we have only just begun.

1 MS. DOUGHERTY: There was a misunderstanding, as I  
2 said, about the purpose of the meeting. And there was -- the  
3 attendees -- when folks got there they did not have the same  
4 understanding. There were people who believed they were  
5 coming to a meeting that was about ongoing and routine  
6 sampling, and there were people who believed they were coming  
7 to a meeting that was about the Environmental Sampling Plan  
8 sampling.

9 So, because of the confusion -- and as I understand it,  
10 the members who represented CMTW and some members of the  
11 public chose to leave the meeting in protest because of the  
12 confusion about the --

13 (Disruption in the audience)

14 MS. DOUGHERTY: So the people that chose to  
15 stay --

16 MR. WOOD: I chose not to participate in your Task  
17 Force meeting that you had here. I came up to deal with the  
18 rain water and the groundwater, and not that at all. I would  
19 have never gone there. And I am angry at the fact that you  
20 would even put my name into your draft minutes because I  
21 never got to speak. I left before that meeting ever began.  
22 I have a physical record of that too because I taped it.

23 MS. DOUGHERTY: As I said --

24 MS. DUFFY: Basically nothing happened at the  
25 meeting.

1 (Disruption in the audience)

2 MS. DOUGHERTY: Some citizens left the room in  
3 protest. The decision was taken --

4 (Disruption in the audience)

5 MS. DOUGHERTY: The decision was taken by the rest  
6 of the members of the Task Force to not continue with the  
7 meeting because --

8 (Disruption in the audience)

9 MS. DUFFY: Should we keep trying to speak? Do you  
10 want to keep trying to talk over this?

11 (Disruption in the audience)

12 MS. SIHVOLA: There is a point in this and you need  
13 to acknowledge it. And I am going to read you from this memo  
14 I recieved yesterday.

15 MS. DUFFY: No, there was somebody else that wanted  
16 to comment before you. If you wait a minute you may speak.  
17 Michael, did you want to say something?

18 MR. ROCHETTE: No, go ahead.

19 MS. SIHVOLA: I was sitting here and Nabil  
20 Al-Hadithy was sitting next to me, and it was very clear from  
21 the minutes when you look at the transcript that four times  
22 David McGraw said Ron Pauer is going to call you and going to  
23 set up this meeting. You are going to be talking about rain  
24 water sampling, storm water sampling, and the issues of how  
25 rain water contamination impacts the creeks and stormwater.

1 MS. DUFFY: I agree.

2 MS. SIHVOLA: And there was not one single  
3 mentioning of the formation of a subgroup to discuss what  
4 apparently was then final on the agenda. So there was  
5 no --

6 MS. DUFFY: It is a separate thing you were talking  
7 about, Pam.

8 MS. GEORGE: Let her speak.

9 MS. DUFFY: What are you doing?

10 MS. SIHVOLA: So in order that we solve this  
11 problem, I think that there needs to be a very detailed  
12 discussion. If any subgroups are to be formed, they need to  
13 be formed at this very meeting. So we need to all agree that  
14 certain people will come to a subgroup to look at certain  
15 aspects of the sampling plan if that is agreeable to people.  
16 If not, then I think every single aspect of the sampling plan  
17 should be discussed with the full Task Force. And I think  
18 detailed technical aspects of the sampling plan need to be  
19 discussed here with everybody present. And I don't think  
20 that there is any reason to bypass that.

21 MS. DUFFY: Thank you, Pam. Paul.

22 (Disruption in the audience)

23 MS. GEORGE: I want to know who made the  
24 decision --

25 MS. DOUGHERTY: Ms. George, the representative from

1 the University of California would like to speak and would  
2 like to make his comments.

3 MS. SIHVOLA: Yes, I would like to find out who made  
4 the decision, and who called that meeting, and why.

5 MS. DOUGHERTY: Paul, please.

6 MR. LAVELY: Well, as you heard, I was critical in  
7 the meeting. You were there and I was critical. I think the  
8 first problem is that this was called a subgroup meeting, and  
9 in actuality it was more -- as I understand it now and having  
10 been there -- an attempt to provide an opportunity for the  
11 members of the Task Force to get a greater understanding  
12 one-on-one with the individual,  
13 Dr. Iraj Javandel, who was writing the plan.

14 Now, I have reviewed the minutes of the last transcript,  
15 and I can tell you I saw at least three meetings discussed.  
16 There was a meeting discussed at the ten-minute public  
17 comment period at the end of the meeting that had been  
18 requested on some issues that were raised by one of the  
19 people making public comment, Ms. Pritikin, that David McGraw  
20 addressed. There was a discussion there. There was a  
21 discussion about monitoring with the City of Berkeley, and  
22 there was to be a meeting on that. And David also mentioned  
23 getting together again in 30 to 60 days to talk about this,  
24 which did not look like it meant necessarily a meeting of the  
25 Task Force.

1       Now, I understand that, and I think everyone understands  
2   that you really can't go back easily to the minutes and  
3   figure out which of those meetings was being discussed at  
4   different times.

5                   (Disruption in the audience)

6   MR. LAVELY:   And I can show you the individual lines that  
7   talk about them, but it is kind of tough.  As it turns out  
8   nothing got discussed at the meeting other than why we were  
9   having a meeting.

10           MS. DOUGHERTY:  And we didn't have it.

11           MR. LAVELY:  And the fact that the very people --  
12   that the meeting was called or scheduled to address their  
13   questions -- the people who are the members of the public on  
14   this panel were not there, not just Pamela, not just L.A.,  
15   but everyone else who was there.  As it turned out it was a  
16   group of people from primarily the Lab, the EPA, the City of  
17   Berkeley, UC.

18       And there really was no reason to go forward because this  
19   was supposed to be a chance, as I understand it, to answer  
20   people's questions by the person who is actually the author  
21   of the plan.  That didn't occur.  That was the comment I  
22   made, which was not that I was unhappy, but that I wasn't a  
23   volunteer.  I am here doing my job.  But several of us are  
24   not volunteers.  We are doing our jobs to represent our  
25   agencies.  And it looked like a waste of time to have that

1 meeting, or try and have that meeting when the very audience  
2 it was targeted to was not in attendance. So why do it  
3 again? And as it turns out, that is what happened.

4 I do believe that it perhaps could have been noticed  
5 better. It could have been on the Web site. I told  
6 David McGraw these things, but at this point I don't disagree  
7 with the point that if there will be other meetings that they  
8 be very clearly identified within this meeting, and that they  
9 be uniquely identified, so we don't end up with a transcript  
10 that I look at and it talks about meetings.

11 MS. DUFFY: I apologize and to Pamela too. Did you  
12 have something too? I am not sure.

13 (Disruption in the audience)

14 MS. DOUGHERTY: Ms. George, please. You are  
15 interrupting the Task Force.

16 MS. GEORGE: I have read the transcript of that  
17 meeting and --

18 (Disruption in the audience)

19 MS. DOUGHERTY: Ms. George, there is no transcript  
20 from that meeting. Ms. George, we did not have a transcript  
21 from that meeting.

22 (Disruption in the audience)

23 MR. NOLAN: I was one of the Task Force members that  
24 attended the meeting. My recollection was a real simple one.  
25 And my simple recollection was that at the prior Task Force



1 meeting that we had, that there were some questions in terms  
2 of detail technically about the specific provisions of the  
3 sampling plan that was at issue: the soil, surface water,  
4 and sediment plan.

5 I distinctly remember in the Task Force discussion there  
6 was an option put forth of getting a group together in a more  
7 workable, smaller session to work those questions, to have a  
8 forum in which those questions could be answered. And when I  
9 attended the meeting that was exactly what I had anticipated.  
10 There was obviously -- for some folks there, confusion about  
11 what the purpose of that meeting was. There were -- as Paul  
12 said, no working discussions took place. Nothing of  
13 substance happened. It was a non-meeting. I think it is  
14 unfortunate that it occurred, but there was no harm, no foul,  
15 no ulterior motive. There were no secrets.

16 (Disruption in the audience)

17 MR. NOLAN: The bottom line is the meeting did not  
18 take place, and it is a non-issue, and we need to move on.

19 MS. DUFFY: We can ask her to be quiet.

20 MR. MCGRAW: I would like to make a comment or two  
21 because my name has been used here about the person that is  
22 quoted in the transcript to the original Task Force meeting.  
23 And I can tell you what was in my mind by offering the  
24 meeting. There was confusion, I believe, in retrospect at  
25 the Task Force meeting. I think Paul has characterized it

1 reasonably accurately by his recollection. My recollection  
2 is there were three different meetings being discussed. What  
3 I heard in the Task Force meeting -- (Disruption in the  
4 audience)

5 MS. DUFFY: Please stop that.

6 MR. BAILEY: Sit down.

7 MS. DUFFY: Ed --

8 MS. DOUGHERTY: I am going to ask the Task Force  
9 right now, do you want to make a statement to the public to  
10 ask them to calm down so you can hear this meeting, or we  
11 will adjourn the meeting.

12 (Disruption in the audience)

13 MS. DOUGHERTY: Do you want to ask the audience to  
14 calm down? David.

15 MR. MILLER: I don't know if it would have any influence to  
16 ask them to calm down so we can talk.

17 MS. PACKARD: I think it would worthwhile -- you  
18 have all placed the effort to be here to move ahead. Please  
19 calm down. You have a public comment period at the end to  
20 say whatever the public needs to say.

21 (Disruption in the audience)

22 MS. FISCHER: I think it would help if you would  
23 read the instructions on the board and to treat people with  
24 respect.

25 MS. DUFFY: Go ahead.

1 MS. BERNARDI: I can tell you that the matter of the  
2 content of the meeting that took place on December 13, 2000,  
3 was mentioned by Pamela Evans, but nobody took it up. What  
4 she was asked was do you want to move ahead and she said, "It  
5 depends what you mean by 'move ahead. ' If it means to  
6 discuss this kind of sampling where the locations are going  
7 to be, then I am for moving forward, " but nobody took her up  
8 on it. All that was discussed was a meeting to be called by  
9 Ron Pauer.

10 MS. DUFFY: This is not helpful, please.

11 (Disruption in the audience)

12 MR. ROCHETTE: I did not attend the previous meeting  
13 that Nabil was at and made comments on. So there was some  
14 confusion, and I think there were some blunders. I don't  
15 feel there was any bad intent on anyone's part. I was  
16 disappointed that we didn't have a technical review of the  
17 issues in that committee. I thought that was a good forum to  
18 have that in. And I was very disappointed we didn't get to  
19 do that.

20 So I was disappointed that the members of the community  
21 walked out and that -- I think they could have had positive  
22 input on the issues even though -- but I think it was -- they  
23 did probably feel blindsided because the issue was not  
24 exactly what they had in mind. Also I was getting mixed  
25 communications myself. There was confusion, but I don't

1 believe there was any ill intent.

2 MS. DUFFY: And about whether you want to move on or  
3 not?

4 (Disruption in the audience)

5 MR. ROCHETTE: I think what we can offer the public  
6 is each of the people on this panel can say what they felt  
7 about the meeting and, you know, the issues of whether it is  
8 legal, or immoral, or whatever can -- you know, those issues,  
9 you know, I don't think they need to be dealt with by this  
10 committee. They can be dealt with somewhere else.

11 MS. DUFFY: So you want to move on?

12 MR. BAILEY: I am in favor of moving on.

13 (Disruption in audience)

14 MS. DOUGHERTY: Pamela, can we ask you specifically  
15 on the topic of moving on?

16 MS. SIHVOLA: Yes, I have reviewed the minutes of  
17 the meeting of December 13, and it is quite --

18 MS. DUFFY: We want to know if you want to go on  
19 tonight, Pamela.

20 MS. SIHVOLA: It is interesting what happened, and I  
21 feel it is very important --

22 (Disruption in the audience)

23 MS. DUFFY: There were no minutes from that meeting.

24 MS. MARKLAND-DAY: Excuse me. I was one of the  
25 people who heard about the meeting. You notice I have been

1 to every one of these meetings. I did not show up at the  
2 December 13 meeting because it was informal. In my opinion  
3 it was an informal group to get more level of detail. I felt  
4 like we had enough level of detail. I am ready to move on to  
5 the next thing. I am here. I only have a little length of  
6 time. I have other things that I have to do. So let's move  
7 on in the agenda.

8 MR. MCGRAW: I would like to move on too.

9 (Disruption in the audience)

10 MR. MCGRAW: We called the meeting on the 13th and  
11 you know that.

12 (Disruption in the audience)

13 MS. DUFFY: Paul, do you want to move on in the  
14 meeting tonight?

15 MR. LAVELY: Yes.

16 (Disruption in the audience)

17 MR. MCGRAW: I have been trying to explain that. I  
18 can't talk over you. Could you please be quiet while I try  
19 to explain that? There was confusion over the meeting.  
20 There were three -- there were three different meetings being  
21 discussed in this Task Force meeting. One was a meeting to  
22 further define where the sampling points would be placed.  
23 One was a request by Ms. Pritikin to meet with parents. The  
24 third was a request by Pam to talk about the ongoing program.  
25 I offered to take those to the parents and the ongoing

1 program offline at a future date. What was in my mind by  
2 offering the 13th meeting was to clarify placement of the  
3 sampling points. As soon as it became apparent at that  
4 meeting that there was confusion, we decided not to proceed.  
5 Nothing happened.

6 MS. DOUGHERTY: It is important for the Task Force  
7 -- I find it offensive to hear the ad hominem about lying.  
8 There was no ill intent in this situation. There was poor  
9 communication, and there were misunderstandings, and there  
10 was no ill intent. And if we do not -- if we do not --  
11 (Disruption in the audience)

12 MS. DUFFY: And it is not a secured facility.

13 MS. DOUGHERTY: If we do not get a consensus that  
14 you would like to tell Ms. George to be quiet or to leave, I  
15 am going to adjourn this meeting.

16 MS. DUFFY: Yes, we will adjourn it, and you will  
17 never get your answer, Ms. George. If that is what you  
18 prefer, if that is what you want to force and the public to  
19 not be able to hear what is going to be discussed around the  
20 air sampling tonight, then you can do that because we are not  
21 going to ask people to be harassed all night, and that is  
22 what is occurring. We would ask you --

23 (Disruption in the audience)

24 MS. DOUGHERTY: The representative from the  
25 University of California would like to speak.

1 MR. LAVELY: Everybody -- perhaps not Pam and Gene, because  
2 they don't have email accounts that you have -- received the  
3 invitation. You called people and talked to them on the  
4 phone.

5 MS. DUFFY: Gene got that because we talked to her.

6 MR. LAVELY: And I can read what you said, which is  
7 that "The subgroup meeting, or the meeting, is being held in  
8 response to requests from some of the Task Force members at  
9 the last meeting to be able to see details of the proposed  
10 sampling, " not to change it, not to comment on it, but just  
11 to see the details, and hear Iraj talk about what he  
12 proposed. You go on to say that, "The topic" -- "The  
13 subgroup topic will be Superfund tritium sampling in surface  
14 water and sediment. And we expect the discussion will center  
15 on the sampling points, that is where the sampling will be  
16 performed. There will be a large topographical map of the  
17 site and the creeks on it, so that people can clearly see  
18 what the possibilities are. "

19 I got the email you sent.

20 VOICE IN THE AUDIENCE: What are you reading from?

21 MR. LAVELY: I am reading from the email that was  
22 sent to me on December 5th.

23 MS. DUFFY: And it was mailed to CMTW. We sent it  
24 to you by mail and I know we talked to you and you received a  
25 phone call from us. Go ahead.

1           MR. LAVELY: I can't stop that, but, you know,  
2 nothing in life is perfect. And as far as I know some type  
3 of an attempt was made to tell people on the Task Force what  
4 the purpose of the meeting was. I will be honest. I don't  
5 remember whether you called me or not. I got the email  
6 message. It was -- I understood perfectly what we were going  
7 there for. I did ask for an agenda, but I think the purpose  
8 is, it was to address -- whether it was addressed in the  
9 meeting or not seems immaterial, that in the meeting when Pam  
10 raised that point that there was a promise to have a separate  
11 meeting is immaterial. It is obvious from the questions you  
12 were receiving going around the table, that some of the  
13 people around the table here wanted more information, and  
14 that is what this was. It was their chance to get this  
15 information.

16          I think everyone -- David has agreed that it could have  
17 been noticed better or could have been on the Web site, and,  
18 yes, there are problems with holding the meetings at LBL  
19 proper to get in and out. L.A. seemed to have been able to  
20 do that and he is a member of the public. I don't think they  
21 would have turned anybody away.

22           MR. WOOD: I didn't come separately. I came with  
23 Pam.

24                   (Disruption in the audience)

25           MR. LAVELY: I don't think David would have --



1 (Disruption in the audience)

2 MS. DOUGHERTY: L.A., I am sorry. Paul would like  
3 to finish.

4 MR. LAVELY: L.A., I respect that you and Pamela  
5 left, but I believe that the real reason it did not proceed  
6 was because the very people -- other than Pam who was there  
7 and there through the whole meeting -- the other people that  
8 had expressed this interest were not there. And it was going  
9 to be like 15 people in a room to explain or to talk about  
10 this to just a couple of people. It wasn't very useful. A  
11 decision was made that this isn't very useful. The very  
12 people that need to be here are not here, and it would have  
13 been a waste of time. Iraj would have had to do it again.  
14 So it was decided to put it off.

15 MS. DOUGHERTY: Thank you, Paul. Dick raised his  
16 hand and then Mike.

17 MS. DUFFY: Mike, do you want to comment on whether  
18 you would like to move forward tonight, keep going.

19 MR. BANDROWSKI: Well, I think we would like -- the  
20 EPA, would like to move forward in the agenda. There is  
21 obviously a lot of concern in the public, and it would be a  
22 good opportunity for them to get their concerns raised.  
23 Maybe a separate meeting could be set up where they could  
24 meet with the Lab and the facilitators or whomever. But the  
25 purpose of the Task Force is to move forward on the sampling

1 plan. I would like to move forward on the agenda.

2 MS. DUFFY: Pamela, do you want to talk?

3 MS. EVANS: Yes, I would just concur with what Paul  
4 Lavelly was saying in terms of my understanding of what that  
5 December 13th meeting was about. I made that request. I saw  
6 heads nodding. I don't remember exactly what everybody else  
7 requested at the meeting, but then it was my understanding  
8 that you made some follow-up calls to see, you know, to  
9 clarify what people's interests were. And my interest at  
10 least was to focus on the sampling plan for the Superfund  
11 evaluation, and that is what I thought I was going to that  
12 meeting for.

13 And again, getting there and finding that the people who  
14 would be most interested in hearing that were not there, and  
15 there was a lot of disagreement about why the meeting was  
16 being held, it just didn't seem worth going forward with it.

17 MS. DOUGHERTY: Did you want to go on with the  
18 agenda?

19 MS. EVANS: As opposed to what?

20 (Disruption in the audience)

21 MS. DUFFY: Ending because there is so much  
22 screaming in the room.

23 (Disruption in the audience)

24 MS. DOUGHERTY: That is simply not accurate. Pam,  
25 did you want to go ahead and continue tonight, or would you

1 prefer to call this meeting and adjourn? Are you willing to  
2 continue with the noise?

3 MS. EVANS: I am willing to continue with the  
4 meeting.

5 MR. NOLAN: Let's continue with the agenda.

6 MR. MCGRAW: And the purpose of this meeting is not  
7 to talk about the routine sampling plan. This is a Tritium  
8 Sampling and Analysis Plan meeting. What we clearly said in  
9 the last meeting -- what we said was we are willing to take  
10 discussions about routine sampling into a separate meeting.

11 (Disruption in the audience)

12 MR. MCGRAW: If we possibly can make progress over  
13 the noise, I would like to proceed with the agenda.

14 (Disruption in the audience)

15 MS. DOUGHERTY: We are on to Agenda Item 4.

16 (Disruption in the audience)

17 MS. DOUGHERTY: Task Force members, can you hear me  
18 okay? I don't have a lot of voice.

19 MS. SIHVOLA: I was present at that meeting on  
20 December 13th. When I reviewed the draft minutes of the  
21 meeting it was very distressing to find out that, in fact,  
22 the discussion really was how to try to get this small group  
23 to agree on the sampling plan so that the Laboratory can  
24 proceed and go forward. It was in the draft minutes and that  
25 was very, very distressing. The discussion at that meeting

1 was extremely troubling to us, and I have prepared a couple  
2 of very short and very precise comments, which I would like  
3 to have --

4 MS. DUFFY: We have run out of time.

5 (Disruption in the audience)

6 MR. ROCHETTE: This is Michael Rochette with the  
7 Water Board, and I certainly would like to proceed. I think  
8 that with regard to the December 13th meeting, obviously  
9 there was quite a bit of confusion. I think it wasn't  
10 intentional or malicious, but certainly there was confusion  
11 on this and what the actual topic for the meeting was going  
12 to be. And I think David has been pretty clear that he  
13 acknowledges there was a problem with that.

14 I would like to go forward with the agenda, but we could  
15 say maybe three points: First, any future meetings,  
16 submeetings, any type of meetings associated with the Tritium  
17 Task Force will be duly noted, and we would -- I don't know  
18 how we can make sure, Barbara, that you are contacted, but if  
19 email is not working, then we will find a way that is  
20 suitable and so that you are able to be contacted. So  
21 Barbara, I hope that is one point you would be willing to  
22 agree with.

23 The second point for where the actual locations of the  
24 meeting are, if there is truly a problem with meeting at the  
25 Lab, which I am unaware of. Being a state employee, it is

1 easy for me to get access, but maybe for private individuals  
2 it may be different -- that we could agree as any meetings  
3 associated with the Tritium Task Force would be located off  
4 site at a location that is convenient for the public.

5 Third point I want to make is if those would be  
6 satisfactory for addressing the future meetings, the routine  
7 sampling -- that is not on the agenda tonight, and I would  
8 prefer not to discuss that right now because I am not  
9 prepared to discuss that. That was not on the agenda for me,  
10 and to tell you the truth I am not prepared to discuss that  
11 tonight. And I would like to discuss it.

12 So I would rather go ahead with the agenda that we have,  
13 and put routine sampling for a future meeting. At the next  
14 regularly scheduled meeting, that could be an agenda item.

15 (Disruption in the audience)

16 MR. MCGRAW: The Laboratory is very supportive of  
17 what you just proposed.

18 MS. DOUGHERTY: So we have an agreement, I think,  
19 Michael, thank you for your suggestions.

20 MS. DUFFY: I think that fits with what Pamela and  
21 Paul just said.

22 MR. ROCHETTE: This last point, that the subgroups  
23 would not be making any independent decisions, but making  
24 maybe recommendations that could be brought before us, the  
25 total group, but they will not be making any independent

1 meetings. I think that is pretty straightforward. And  
2 David, I am glad you say the Lab would support it. And I  
3 suggest we do that and move on with the meeting for tonight.

4 MS. DUFFY: Paul, go ahead.

5 MR. LAVELY: I offered to David yesterday that  
6 because of the difficulty of getting onto LBL for some people  
7 that we would help by trying to find a place that is on the  
8 central campus that is easy to get to if that was acceptable  
9 to him. And I am willing to try and help make this work.

10 MS. DOUGHERTY: Let me note for a second that we  
11 have a change of court reporters to do. We have a break  
12 scheduled in tonight's meeting. Would you like to speak for  
13 a few minutes before the break?

14 MS. MARKLAND-DAY: I would like to avoid the break  
15 and press on.

16 MS. DUFFY: So we will miss a little bit when you  
17 switch over? Is that the worst thing that could happen?  
18 Thank you. They are going to accommodate us.

19 MS. SIHVOLA: I wanted to say something. There is  
20 an item on the agenda, number 3. And I have actually  
21 prepared a statement. And we officially requested to have  
22 five minutes on the agenda to discuss this very issue related  
23 to the sampling. And I would like to have that chance to do  
24 it since the community has never had an opportunity to be on  
25 the agenda.

1 I have three view graphs, which I would like to show, and  
2 I would like to read. I have my statement. It is written.  
3 It is very brief, and I would like to present it before David  
4 McGraw because it goes into the very fundamental nature of  
5 this process. And we faxed a request and Terry Powell told  
6 us we can't be on the agenda under item number 3. I would  
7 like to ask to do it before  
8 David McGraw's presentation.

9 MS. DOUGHERTY: Let's ask the Task Force.

10 MS. DUFFY: Does anybody have an issue with that?

11 MS. DOUGHERTY: Please keep it to five minutes.

12 (Applause)

13 PRESENTATION BY MS. SIHVOLA

14 MS. SIHVOLA: I need help with three view graphs and  
15 that is all, but I am going to appeal to the professional and  
16 the personal integrity of all of the Task Force members. I  
17 am asking on behalf of the Committee to Minimize Toxic Waste  
18 that the LBL Tritium Sampling Plan should not proceed for the  
19 following reasons.

20 I only have five items, so please be patient with me. I  
21 will try to be as brief as I can. Number 1 is the item above  
22 that the National Tritium Labeling facility has not been  
23 operating at full or typical capacity since 1994. And the  
24 graph which you are looking at here shows the emissions in  
25 curies. The very first graph shows when emissions go up, it

1 is usually a result of tritiations going up. The number of  
2 tritiations -- the graph below here shows the number of  
3 tritiations for each year from 1990 through 1999, and there  
4 is a direct correlation between the number of user  
5 tritiations and the emissions.

6 And as you can see at the very end, since 1996, when the  
7 tritium facility was shut down for half a year the  
8 tritiations -- the number of user tritiations which  
9 contribute to the highest emissions -- they have never  
10 reached the levels prior to, let's say 1994. So we are  
11 saying the emissions are artificially curtailed by the  
12 curtailing of the tritiations of the facility. For this  
13 reason the sampling should not go on because it is not a fair  
14 and accurate Superfund sampling since the facility has been  
15 curtailed artificially.

16 The second item is, the evaluation of tritium groundwater  
17 data is not included in the plan although this evaluation is  
18 certainly one of the four exposure pathways. Also, as you  
19 all know, the San Francisco Water Control Board has required  
20 that tritium impacts the groundwater and is included as part  
21 of EPA and the environment. Rainwater sampling is not  
22 included in the plan. At least three rain gauges should be  
23 placed along the fences between the tritium stack and  
24 Lawrence Hall of Science. Rainwater data will give you  
25 accurate, direct measurements regarding the emissions in the



1 air.

2       The air sampling plan emissions have not yet been  
3 submitted, and the most important point that I would like to  
4 make -- and I am appealing to your professional integrity --  
5 there has been no technical justification provided for the  
6 proposed sampling plan regarding the locations or the timing.  
7 The sampling plan for surface water needs to be refined in  
8 accord with Mr. Pauer's remark at the last Task Force meeting  
9 where he commented that past-type emissions impact  
10 tremendously with what the tritium concentrations were in the  
11 creek.

12       Therefore, a schedule of user tritiations for the  
13 calendar year 2001 must be provided to Task Force members in  
14 advance of any sampling, so that the Task Force can see the  
15 timing of sampling is coordinated with actual puff emissions,  
16 i.e. user tritiations.

17       This is my last slide.

18           MR. MCGRAW: Before you take that slide off, can you  
19 explain 1992, please, because 1992 looks like there were an  
20 awful lot of tritiations and the emissions were fairly low.

21           MS. SIHVOLA: The graph only shows you there is a  
22 correlation.

23           MR. MCGRAW: That is atypical to the correlation. I  
24 am sorry.

25           MS. SIHVOLA: We have a span of almost 20 years. So

1 I am basically saying that during the 20 years, you can say  
2 that there is a fairly accurate correlation between the  
3 number of tritiations and the emissions. And I am not really  
4 saying whether X number of --

5 MR. MCGRAW: That is because of engineering  
6 improvements in the facility. That is why.

7 MS. SIHVOLA: Basically, I am sort of arguing  
8 against what has been presented previously. There is a  
9 correlation. And if you feel there is something that is not  
10 correct here I would like you to provide that data because I  
11 am using it for this graph.

12 If you would be kind and help me. This is the last  
13 point.

14 MS. DUFFY: Time is up.

15 (Disruption in the audience)

16 MS. SIHVOLA: So this last point was regarding the  
17 creek water. Over 60 percent of the proposed sampling  
18 locations -- this is what LBNL is proposing to sample. What  
19 I will do is -- I am superimposing the currently-known  
20 tritium plume. The outlying extent of the tritium  
21 concentration, as well as those four black dots, show  
22 vegetation sampling that reflects soil water concentration.  
23 And over 60 percent of this proposed sampling by locations  
24 are outside the known groundwater, soil water, and aerial  
25 tritium concentration plumes.

1        Furthermore, because the tritiations are reduced, the  
2        concentration in the soil has largely subsided below the  
3        upper two feet of soil in which the proposed sampling will be  
4        done. As you can see, the historical data from the  
5        groundwater has percolated through, and it is now in the  
6        unsaturated part.

7        So in conclusion, in order to provide a technical  
8        justification for the entire sampling plan or any part of it,  
9        we are requesting that LBNL run the CAP 88 Dispersion Model,  
10       which is the EPA's current legal requirement. Run the CAP 88  
11       Dispersion Model using correct parameters for stack height  
12       and wind speed to show the tritium concentration in each of  
13       the 16 wind-direction sectors. This current project only has  
14       12 sectors.

15       The CAP 88 has 16 wind directions, and we would like LBNL  
16       to do the run and show the concentrations of tritium at 25,  
17       50, 75, 100, 125, 150, 175, and 200 meters. And you would  
18       note that from the CAP 88 below 200 meters there is hardly  
19       any tritium detectable. Any true and scientific sample is an  
20       integrated one in which all the parts are related and grow  
21       out of a well-thought out technical justification derived  
22       from hypothesis-related concepts and environmental evidence  
23       that represents those concepts. Members of the Task Force  
24       with any scientific training whatsoever will recognize that  
25       the LBNL Sampling Plan does not meet these criteria, and

1 therefore should not be implemented without these  
2 considerations.

3 MS. DOUGHERTY: David McGraw will be doing his  
4 presentation.

5 (Part I concluded at 7:57 p.m.)

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1 STATE OF CALIFORNIA )

2 )

3 COUNTY OF ALAMEDA )

4

5 I, ELIZABETH A. WILLIS, a Certified Shorthand

6 Reporter 12155, do hereby certify:

7

8 That the foregoing proceeding was taken before me at

9 the time and place therein named; and

10

11 That the same was taken in shorthand by myself and

12 was thereafter transcribed into typewritten transcription.

13

14 I further certify that I am a disinterested person to

15 said action and in no way interested in the outcome thereof

16 nor connected or related to any of the parties thereto.

17

18 IN WITNESS WHEREOF, I have hereunto set my hand and

19 affix my official seal of office this 5th day of February

20 2001.

21

22

23 ELIZABETH A. WILLIS

24 CLARK REPORTING .

25

1 PRESENTATION BY MR. MCGRAW

2 MR. MCGRAW: This graph I wanted to put up at a  
3 certain level for where we are in the process. I think  
4 for some of you, it might address some of your concerns.  
5 I think it's very important, and I want to come back to  
6 the graphs briefly, but I also want to take that  
7 discussion, perhaps in another forum.

8 I think it's very important for us to understand  
9 why it is we were here originally. And other issues have  
10 come up in these discussions with the Lab, and I'm  
11 certainly willing to address some of those issues. But  
12 remember, we have the tritium and analysis plan. That was  
13 why the task force was gathered for, to look at the  
14 tritium sampling and analysis plan. What the tritium  
15 sampling and analysis plan was set up to do was really  
16 address two issues: To give the EPA more data to  
17 characterize relative to the dose pathways that EPA is  
18 concerned with, whether, in fact, the Superfund  
19 eligibility listing is a valid one and whether any further  
20 decision needs to be made relative to listing or not on  
21 the Superfund. That was one purpose. The other purpose  
22 was to do a review of the data to see if we had  
23 characterized in a general sense the tritium risks  
24 throughout the dose pathways accurately.

25 There is an ongoing sampling plan at the

1 Laboratory, and it has been for many years, and you've  
2 heard that come up tonight. And that's a different set of  
3 issues.

4 What we originally planned with this Task Force  
5 was to get at these two questions I just described, along  
6 this set of milestones, which I want to just review  
7 briefly. Indeed, we have a very mature, ongoing sampling  
8 program in many media that have nothing to do with the  
9 dose pathway relative to the Superfund scoring of the  
10 primary air pathway. Mike, any time in the discussion,  
11 you can jump in here.

12 I want to come back to the graph, talk about the  
13 time lines, offer to put this on the table in another  
14 schedule perhaps, but in response to what Pamela put up on  
15 the board there, when you look at correlations, you have  
16 to look at the whole set of conditions around those time  
17 lines. In 1992 one very troubling piece of the data she  
18 put up there our tritiation had gone up, but, indeed, our  
19 emissions had gone down. In fact, in 1992 that's when the  
20 emissions started to go down. That's when we started to  
21 aggressively reengineer the tritium process. And that's  
22 why the emissions have gone down.

23 Let's talk about this for a second. One of the  
24 things I wanted to make sure that we understood as a task  
25 force is the fact that as challenging as these meetings

1 have been, we really have accomplished a lot. Remember,  
2 we got a request from EPA to gather supplementary data.  
3 So we set up the Tritium Sampling and Analysis Plan Task  
4 Force and wrote a plan that would help us gather that  
5 supplementary data to try and clarify questions around the  
6 air-dose pathway.

7 That task force was set up January of 2000. We've  
8 been at this a little over a year now, and I really think  
9 we have accomplished a lot. We've looked at many of these  
10 media. Last meeting, the last task force meeting we got  
11 to the edge upon starting to sample the air media. We can  
12 revisit that tonight. And I thought -- and we don't  
13 always communicate as clearly and uniformly as we would in  
14 a perfect world -- but I thought we got to the edge on  
15 these.

16 So vegetation, soil sampling, I've represented in  
17 a different color to save you, task force. We really did  
18 get a lot done, have gotten a lot done and I think we have  
19 gotten to yes, we need to proceed here. Tonight I wanted  
20 to go through these media, bioassay, which in this case is  
21 the urinalysis, the ambient air portion of the sampling  
22 plan, and the groundwater portion of the sampling plan.  
23 What you are going to hear me say -- and I'll give you the  
24 details to support this -- is I think it makes sense to  
25 take this and this -- bioassay, urinalysis, and



1 groundwater -- into the ongoing plan, and focus on what is  
2 of real concern to EPA, the air pathway, and hopefully we  
3 could move air over in this set that we would say, "It's  
4 time to move forward and start sampling."

5 In fact, the data, the modified sampling plan,  
6 based on your comments -- we've modified the plan based on  
7 your comments -- is back at EPA's desk now. And EPA has  
8 indicated they're going to try and give that -- they can't  
9 control that perfectly either, but they are going to try  
10 and give that an accelerated review. So I think that we  
11 might be able to get to the point tonight where we could  
12 say, "Let's start to do some sampling in this, in this,  
13 and in ambient air."

14 When we have the final approved plan, the path  
15 forward is for EPA to concur with the plan -- remember,  
16 for these two media, as modified, they've got that plan --  
17 and for DOE to approve the plan. I just wanted to clarify  
18 that EPA hasn't approved the plan. They said they're  
19 going to concur. DOE approves the sampling plan. We'll  
20 share that with you, and we believe that EPA will give  
21 that to us, a written concurrence, and then DOE approval  
22 to, "Yes, this is the plan," and start sampling.

23 MS. GEORGE: What about the groundwater, David?

24 MR. MCGRAW: We're going to discuss that tonight.  
25 And we think that to capture the whole season we probably

1 will sample for a year to make sure we have captured and  
2 characterized all weather situations. We also think that  
3 it makes sense that once we start to sample, to start to  
4 cycle data back to you as a task force, and back to the  
5 EPA so they can start to make some of their decisions so  
6 at the end of tonight, one of the questions we might ask  
7 is when should we have -- if we started sampling, when  
8 should we have our next meeting?

9 MS. GEORGE: Not until we get groundwater into the  
10 plan.

11 MR. MCGRAW: If you want, as a task force, do you  
12 want to have a meeting to review data? Do you want us to  
13 collect all the data before we have another meeting? That  
14 might be a question to get to at the end of tonight.  
15 Then, of course, we would complete a final report to  
16 submit to DOE and EPA.

17 This is a tritium sampling and analysis milestone.  
18 We do have an ongoing program. I'm going to make an  
19 argument that I'm sure will be very interesting in taking  
20 the groundwater into the routine sampling plan. Now, the  
21 routine sampling plan, I'm going to cover that in a fair  
22 amount of detail tonight to characterize what we've done.  
23 Remember, we've been sampling routinely in all of the  
24 media for many years in the Laboratory. We've been  
25 publishing that in our annual environmental report. You

1 saw the environmental report in the publications that  
2 we've given to you as a task force. We put the  
3 environmental report in the library every year. For the  
4 last few years we've actually published it on the Web. So  
5 we tried to make it as available as possible for the  
6 public. At the end of my presentation tonight I want to  
7 come back to this and see if we can't get to an agreement,  
8 as I proposed to you, for moving forward and what the next  
9 steps might be.

10 Okay. So just to remind you, I always find it  
11 useful to understand the structure of the presentation I'm  
12 looking at. I didn't get through all of my presentation  
13 last time. We did talk about the media, as I indicated in  
14 that previous draft. But the way we structured  
15 presentation is the media -- that we identified the media  
16 we wanted to discuss, and we present it in three aspects.  
17 I'm sorry. These are the three media I want to discuss  
18 tonight. And, again, Ms. George, groundwater is on there.

19 In each media, we consider it in three aspects. I  
20 present this to you in three aspects: What was proposed  
21 in the original tritium sampling and analysis plan, what  
22 we do in our ongoing program -- not the tritium sampling  
23 analysis plan, but the ongoing program we've had since  
24 1972 -- and then how we have modified or responded to your  
25 comments in modifying the tritium sampling and analysis

1 plan. So we'll see the three of those things for each  
2 media. Okay. The first media I want to talk about --  
3 these are the three media I'm going to talk about tonight:  
4 ambient air, groundwater, and urinalysis. We had stopped  
5 the presentation just as I was about to get to air last  
6 time. And one of the things I want to talk about in air,  
7 relative to the air, before getting into the details of  
8 the sampling plan, is that I want to respond to Eric's  
9 recommendations that we get rid of the stack. That's -- I  
10 think this is about the third time we've heard Eric make  
11 that recommendation to us. We've had that recommendation  
12 from other people, and we have listened to it. So we have  
13 heard you, Eric, and we do want to respond. And, as you  
14 know, you've spent some time with us analyzing our  
15 process. And as we considered your comment, we realized  
16 we've made considerable engineering improvements in that  
17 process. That's why those emissions went down since 1992.  
18 And some of these engineering process improvements include  
19 what I've listed here. That's not a comprehensive list.  
20 It's an illustrative list.

21 So we've made many engineering improvements such  
22 that we don't think we need that stack either. We agree  
23 with you. So we have undertaken an engineering study, a  
24 feasibility study to see if we can't take that stack down,  
25 and we think we can, and propose to do just that.

1           In fact, some of the systems improvements are  
2       listed here. One of the things that we discovered when we  
3       took a look at the facility is if we rehabilitated that  
4       HVAC system, the ventilation system of that whole  
5       building, not just the tritium facility, but that whole  
6       building, we'd get a considerable return in terms of  
7       energy efficiency.

8           That's very important to us as a laboratory  
9       because we sit down with DOE each year, and we actually  
10      identify energy efficiency goals that we're going to be  
11      measured on. And certainly energy efficiency, right now,  
12      is a very appropriate topic. We had, I think, some  
13      rolling brown-outs today. We're going to get a lot of  
14      energy efficiency improvements if the plan we propose is  
15      implemented. For example, on energy efficiency, if I just  
16      looked at the savings -- if I just look at an electrical  
17      savings in a day, we'd get enough energy savings from  
18      doing a rehabilitated HVAC system to run eight Bay Area  
19      houses electrically for a day.

20           So we propose to move forward and, in fact, remove  
21      the stack. We'll also get a reduction in occupational  
22      doses to our workers with no increase in the environmental  
23      emissions. We've discussed this with the EPA and we've  
24      done some preliminary modeling, and we're going to move  
25      forward with that. And I wanted you as a task force to

1 know that first, before we make it generally known. And I  
2 wanted to be responsive to Eric's comments.

3 So the tritium specifically, now, let's talk about  
4 air. And let's talk about the sampling plans, the tritium  
5 sampling and analysis plan, the so-called TSAP plan,  
6 relative to air, the original plan -- can I get a new  
7 little pointer here -- the original plan proposed that we  
8 located at the University of California some supplementary  
9 air sampling in our TSAP. We did propose some  
10 supplementary ambient air samplings. One was located at  
11 the Botanical Gardens; one was located at the East Bay MUD  
12 Summit Reservoir. I'll come back to this comment. We've  
13 actually modified that because of some of the comments you  
14 gave us. So the tritium sampling and analysis plan was  
15 originally submitted. It did have some supplementary air  
16 sampling stations included. It only had two of them. You  
17 commented to us, Bernd Franke commented to us and said  
18 that's not enough. Specifically, let me show what you  
19 have commented on.

20 MS. SIHVOLA: In the meanwhile, I would like to  
21 find out what is the technical justification for the  
22 selection of these current air sampling sites.

23 MR. MCGRAW: I will come to that.

24 MS. SIHVOLA: What is the foundation that you are  
25 basing it on?

1 MR. MCGRAW: I'm going to give you the answer.

2 MS. GEORGE: Are you saying that there are only  
3 going to be two?

4 MS. DUFFY: Let him finish.

5 MR. MCGRAW: I think 99 percent of your concerns  
6 will be addressed. Those that aren't addressed will be  
7 addressed. Just to finish off on the ongoing one, I've  
8 described what the nature of the ongoing program is. So  
9 what I just had up on the board is what we proposed in the  
10 TSAP plan. This is what we've done historically at the  
11 Lab. And, again, we've published those results.  
12 You've -- so I've shown you two things so far, what was in  
13 the original TSAP plan and was in our ongoing plan.

14 MS. GEORGE: I can't read that. Sorry, I need to  
15 have a little more time, if you really want us to see  
16 them.

17 MR. MCGRAW: Okay. So let me just -- so there is  
18 no confusion again about the format, that was the original  
19 TSAP plan for air. That's not what's in the plan today.  
20 Okay. Before you jump all over me, that's not what's in  
21 the plan today. That's what was in the original TSAP  
22 plan.

23 MS. SIHVOLA: I wanted to comment before you move  
24 that, I received the sampling plan yesterday, so I have  
25 not had really very much time to review it. So I am --

1 and I believe that's the same case with others here. I  
2 was very concerned because I could not see from the  
3 revised plan, what has been changed.

4 Usually when you have a plan you cross-over items  
5 that you are eliminating, you use bold type or italics to  
6 show what has been added. I could not see at all what has  
7 been changed in the text. So is it possible to -- I mean,  
8 how do you -- how do you expect people to really  
9 understand what has been revised if you are really  
10 expecting people to look at the revised sampling plan in a  
11 serious manner?

12 MR. MCGRAW: I'm trying to get to that.

13 MS. SIHVOLA: I said I looked at that, and I  
14 couldn't see.

15 MR. MCGRAW: Give me a chance to explain that. So  
16 what I want to do tonight -- and, Pam, I would really  
17 appreciate you being patient. All right? We've really  
18 listened to you. I would really like you to listen to me.

19 MS. SIHVOLA: I didn't see any of the comments.

20 MR. MCGRAW: I haven't gotten to it yet.

21 MS. SIHVOLA: I have read it.

22 MS. GEORGE: That's the question, David. Why isn't  
23 it clear?

24 MR. MCGRAW: So that's what was in the tritium  
25 sampling analysis plan for air. That's what we do. And I



1 will give you a chance to read that in the ongoing plan  
2 for air. Okay? We did get comments from you. And we  
3 considered those comments. So here are some of the  
4 comments.

5 Move the Met station further on the hill, closer  
6 to the Lawrence Hall of Science, and add two new  
7 air-sampling stations. There is where those comments can  
8 be found in the transcript. So our response, "A new met  
9 and ambient air station was installed in January 2000  
10 between the NTLF stack and the Lawrence Hall of Science."  
11 We think that monitor is ideally located, based on wind  
12 data. I'm going to show you a map of this, part of the  
13 answer to one of the questions: elevation with respect to  
14 stack height and the breathing zone at the fence line. So  
15 we've heard you and we've put that in.

16 MS. SIHVOLA: I would like to comment that I  
17 haven't reviewed the location of the meteorological  
18 station. It is placed at the edge of the grove. It will  
19 not represent the movement of the wind, the wind speed in  
20 the grove. And the second thing regarding the air  
21 monitors, the very -- the mouth, the funnel that's  
22 connected to the ambient air monitor is below the mouth of  
23 the stack. And it is absolutely clear that you will never  
24 be able to -- with the current location, you will never  
25 get the plume from the stack. So we are -- we are

1 disagreeing with you regarding the placement of the  
2 meteorological station as well as the placement of the  
3 intake funnel for both of the air monitors. And we would  
4 like to -- I mean, we would like to have this discussed.

5 MS. DUFFY: We can do that.

6 MS. MARKLAND-DAY: I would very much like to have a  
7 copy of what Pam is talking about. I would like to hear  
8 the presentation and go forward.

9 MS. DUFFY: I think the idea is to let him present,  
10 and then you can comment on anything that he doesn't  
11 answer. Okay, Pamela? So you can bring that up.

12 MR. MCGRAW: And if you've got comments and we  
13 don't address them tonight, it would be very helpful if we  
14 could get the comments written and submitted as written  
15 comments. That does a couple of things.

16 MS. GEORGE: I thought we were supposed to have a  
17 dialogue.

18 MS. DUFFY: Let him finish talking.

19 MR. MCGRAW: You really want a dialogue? Let me  
20 finish, then.

21 MS. SIHVOLA: Absolutely. You don't finish. We  
22 discuss these issues as you are presenting them, because  
23 they are then in context.

24 MS. DUFFY: You can't know what he's going to say  
25 later.

1 MS. GEORGE: He can address it as he goes along.

2 MS. PACKARD: I would like really to have David  
3 present the larger context and then have kind of a big  
4 picture and then have someone look at the specific details  
5 and address the concerns such as Pamela is raising now,  
6 rather than pick it apart as it goes.

7 MR. MCGRAW: It is important to have verbal  
8 dialogue. But let me finish my thought on why I think  
9 it's so important -- Pamela, I know you have a question --  
10 to get your concerns written down. I think it's very  
11 important to document what your concerns are so we could  
12 agree that that's what your concern was so we could  
13 formally respond to it.

14 MS. SIHVOLA: Obviously, he doesn't know that. You  
15 haven't seen my written comments. I have addressed this  
16 very issue in my written comments. So where do we go  
17 next? Because you have not incorporated it in your  
18 presentation.

19 MS. DUFFY: Wait a second.

20 MS. SIHVOLA: What do you do, then?

21 MS. DUFFY: We don't know that --

22 MR. WOOD: We've looked --

23 MR. MCGRAW: Let me finish the presentation and  
24 identify what it is we haven't addressed, and then what we  
25 haven't addressed we will take a good look at. And we

1 will respond formally to you.

2 MS. EVANS: It sounds like maybe Pamela has gotten  
3 a revision that I haven't gotten and it doesn't sound like  
4 Sue has gotten. Has there been a revision like this?  
5 We've received soil, sediment and surface water sampling  
6 and vegetation sampling, but we haven't received anything  
7 on air.

8 MS. DUFFY: It's not finished yet. That's right.  
9 I'm not sure what you're talking about. She means the one  
10 you just got on sediment.

11 MR. MCGRAW: To my knowledge, Pam doesn't have  
12 anything you don't have.

13 MS. EVANS: She said she just got something  
14 yesterday. And I got these over a week ago.

15 MR. MCGRAW: When was it mailed out, please?

16 MR. PAUER: The ambient air plan has not been  
17 revised.

18 MR. MCGRAW: The ambient air plan has not been  
19 revised.

20 MS. DUFFY: That's correct, Pam. That's correct.

21 MS. SIHVOLA: Can Geoff say something about it?

22 MR. FIEDLER: We had a hand-delivered copy, today,  
23 of those documents. They were in my office this  
24 afternoon.

25 MS. GEORGE: We can't hear you.

1 MR. MCGRAW: When was it mailed out?

2 MR. PAUER: He's gotten the soil, surface water and  
3 vegetation plan, not air.

4 MS. SIHVOLA: This is exactly what he's talking  
5 about.

6 MR. MCGRAW: I'm talking about air.

7 MS. SIHVOLA: He could have received it today.  
8 That's what he's trying to say, that the City received  
9 these plans today.

10 MS. DUFFY: This is not what David is talking  
11 about. It's not what David is talking about. David is  
12 talking about air.

13 MR. MCGRAW: What I'm trying to talk about -- let's  
14 put this back up. What I'm trying to talk about -- and  
15 let's take a leap of faith here with each other, and let  
16 me finish -- I'm trying to talk about ambient air. You do  
17 not have --

18 MS. GEORGE: You don't have our faith, David. We  
19 can't do it with you. Sorry.

20 MR. MCGRAW: This is what I'm trying to talk about  
21 right now. We talked about the last time, and what I did  
22 get through, were these two media. We delivered to you a  
23 modified plan for these media, not for air.

24 MS. GEORGE: And those were a done deal because  
25 you've already sent them to the EPA.

1           MR. MCGRAW: The EPA is a member of the task force.  
2           So all of you around this table got the modified sampling  
3           plan.

4           MS. GEORGE: People at the EPA who are going to  
5           deal with it don't sit at this table. That's Phil  
6           Armstrong.

7           MR. MCGRAW: So what I'm trying to talk about is  
8           the air, so that we could get the air over here. All  
9           right. So we're on air, and we're on your comments. Now,  
10          one of the issues was where we put the Lawrence Hall of  
11          Science monitor. And part of the input we've gotten from  
12          you is that -- you've got two issues, and I've identified  
13          one here. And I'll speak to the other. That's the  
14          location of this monitor.

15          You wanted it at one and a half meters from ground  
16          level. We placed it at three. We placed it at three  
17          meters, which is a little over six feet, which is -- from  
18          the ground, if you -- if I stood next to it it would be  
19          about here on me, not my direct breathing zone. We think  
20          there's enough mixing in the air. That's appropriate.  
21          We've placed it at that height to discourage vandalism.

22          MS. SIHVOLA: Three meters is nine feet. We are  
23          barely in the -- are there people in the Lawrence Hall of  
24          Science that are nine feet tall?

25          MR. MCGRAW: When I'm feeling my most important,

1 I'm 10 feet tall. You're right. Nine feet. It's way  
2 above. We placed it at that height because it will  
3 discourage vandalism. We think there is enough air mixing  
4 that it doesn't matter. The other issue we raised is why  
5 did we move this monitor outside of the Lawrence Hall of  
6 Science when many years ago it was inside the Lawrence  
7 Hall of Science?

8 We moved it outside the Lawrence Hall of Science  
9 specifically at the request of the Department of Health  
10 Services, and Ed is here to verify that, and the  
11 Department of Energy. Now, Paul, yesterday, in  
12 discussions he and I had, offered to place a monitor,  
13 seeing how the inside of the Lawrence Hall of Science is  
14 the University of California's responsibility, to place  
15 a monitor inside. I think that's a non-issue.

16 Are you still willing to do that, Paul?

17 MR. LAVELY: We've already placed it.

18 MR. MCGRAW: That might provide an opportunity to  
19 do some interesting comparisons. So there is a monitor  
20 now, as Paul has indicated, inside. We don't think that  
21 height is a big deal because we think there is enough  
22 mixing there.

23 MR. LAVELY: It's in exactly the same place it was  
24 years ago, whatever that was.

25 MR. WOOD: '95.

1 MS. DUFFY: That's a letter that I passed out that  
2 people -- that's what I --

3 MR. LAVELY: Where is it located? Steve Mullin's  
4 office.

5 MS. SIHVOLA: Where is Steve Mullin located?

6 MR. LAVELY: I don't know. It's at the same  
7 location where the samples were taken in '95. I didn't do  
8 it. Where is it?

9 AUDIENCE COMMENT: It's where the old sampler was  
10 if it is still there.

11 MR. LAVELY: Where is Steve's office? Second  
12 floor?

13 AUDIENCE COMMENT: Yes.

14 MR. MCGRAW: So still on ambient air and still  
15 responding to some of your concerns, this is a concern  
16 that Bernd Franke listed in his report. And he said as to  
17 the location, not specifically just the location, but the  
18 location and the number of these air samplers that we're  
19 talking about, that the Laboratory should place 16  
20 monitors to capture all wind directions.

21 So I'm going to respond to that specifically.  
22 I've got a little bit of background in history here. We  
23 did locate these air-monitoring stations originally placed  
24 on these two primary considerations: where people are  
25 working and living, and who might be affected by the



1 emissions. In other words, what is the dose pathway,  
2 where are the people, where is the wind blowing, and where  
3 are the people. So wind patterns and people. So that's  
4 dose pathway.

5 Now, we used to have more. This is one of the  
6 issues that you've raised. We did remove some of them.  
7 We removed them with the complete concurrence of DOE and  
8 EPA because we were getting negligible results from some  
9 of them.

10 MS. GEORGE: Not all of them.

11 MR. MCGRAW: The only ones we removed were the ones  
12 that we got negligible results from.

13 MS. GEORGE: That's not the way it reads in the  
14 reports you gave.

15 MR. MCGRAW: What we will do is put several  
16 additional ambient stations back in the modified TSAP.  
17 The total number of sites will end up as 14. Mr. Franke  
18 recommended 16. We're going to end up with 14. I'll  
19 explain to you how we identified that number, what the  
20 logic of it is, and how we have identified the locations  
21 in just a moment.

22 Now, this closes the loop. And one of the first  
23 things I have up there under air is that we had originally  
24 planned to place a monitor at another reservoir. Your  
25 criticism -- the EPA specifically made this criticism --

1 is that monitor that you had at the other reservoir was  
2 too far out. It was 2.1 miles. "Why don't you locate one  
3 between one and two miles?"

4 "We'll do that. We'll locate one at exactly  
5 1.5 miles." And that would be the Amito Reservoir. What  
6 does that look like in terms of a set? What I'm showing  
7 you here is -- and you do have this as a handout in your  
8 presentation. That was sitting at, I believe, at your  
9 desk when you sat down.

10 MS. DUFFY: Everybody have one? It's the first one  
11 in.

12 MR. MCGRAW: This shows you several things. It's  
13 rather busy, but it shows you several things. Here is the  
14 National Tritium Labeling Facility. What these colored  
15 lines are are a wind rose, prevailing winds, direction and  
16 velocity. What you've got in various radii around here  
17 are sampling stations, location of sampling stations.  
18 What the blue is is what the Laboratory has for existing  
19 stations; what the green color -- I guess, is how my eyes  
20 record it, sort of a brownish-green -- responds to  
21 Mr. Franke's and other's comments to put more stations in.  
22 We've said we will do that. So we're suggesting we put  
23 one at the Botanical Gardens, one at the Amito Reservoir,  
24 a supplementary one --

25 MS. GEORGE: Why don't you put one in Los Angeles?

1           MR. MCGRAW: One in building 62, one here on site,  
2           one here on site, a supplementary one here on site, and  
3           one by the -- is it the Mathematics or Space Sciences  
4           Institute? Math Sciences Building, specific location to  
5           be determined yet. Now, how did we get to that?

6           MS. GEORGE: As far away as possible.

7           MR. MCGRAW: Let me show you what these -- I'll  
8           bring you back to these wind roses. By the way, the  
9           blues, I said, are existing ones. If you count this up,  
10          it does come to 14 stations. If you look at these wind  
11          roses, what you see is the prevailing wind is in this  
12          direction and in this direction, and that -- the way you  
13          read the wind roses is the wind blows in this direction,  
14          from fat to narrow. It blows in that direction, where the  
15          arrow is going, and it blows in this direction. That's  
16          really the diurnal cycle, night to day. It's either  
17          blowing towards the Botanical Gardens or, in general, the  
18          Lawrence Hall of Science. All right.

19          So we've located these based on several  
20          considerations: What are the prevailing winds? Again,  
21          that's the dose pathway, the prevailing winds, and are  
22          there people in that pathway, where are the people.  
23          Then -- that's the first technical basis, and the most  
24          important one. Then we had to consider things such as  
25          access, could we get at that area, and could we place the

1 monitor there, do we have the building to stick it on or a  
2 structure to stick it on, and can we tie into power.  
3 That's the basis of the locations.

4 The technical basis is based on dose pathway,  
5 prevailing winds, population, and can we get at the  
6 property and can we hook it onto something and into power.  
7 We think this is a pretty responsive answer to the  
8 criticism that you should have more. We've said 14,  
9 Franke has said 16. If we were to place others here, to  
10 bring it to the full 16, we would have some challenges  
11 relative to where to put it and how to hook it into power.

12 So the only real difference between what we're  
13 proposing here and what Franke has proposed is maybe right  
14 in this area and over in this area. And we simply don't  
15 have the access there to the structures and power that we  
16 have in the other areas. There were other considerations  
17 too, and that was for precisely -- and that had to do with  
18 terrain because we want these things to be serviceable.

19 MS. SIHVOLA: I wanted to comment on this. This is  
20 a very, very important issue. It is very, very clear that  
21 nothing that we have presented at these task force  
22 meetings during the past year really have reached the  
23 Laboratory. It is very clear from the existing  
24 environmental data, specifically from Dr. Menchaca's data  
25 from 1996, that the tritium concentrations drop off

1 exponentially within 100 to 150 meters from the stack. It  
2 is absolutely absurd to put any kind of an air monitor  
3 outside a 150-meter radius from the stack. And in my  
4 presentation I said I would like the Laboratory to run the  
5 Cap 88 model for all the task force members to show where  
6 the concentrations of tritium fall within the 16 wind  
7 direction sectors at each interval of 25 meters from the  
8 stack.

9 I will never sign off on putting this many  
10 expensive monitors into areas where there is absolutely no  
11 possibility that tritium occurs. The tritium goes within  
12 a 100 to 150 meter radius, generally covers the Lawrence  
13 Hall of Science, and that's where all the sampling should  
14 be concentrated on. And that's where the ambient air  
15 monitors should be put. And there should be real-life  
16 ambient monitoring as well. And I challenge you to run  
17 the Cap 88 model for all of us and have a discussion at  
18 the next task force meeting in conjunction with the  
19 results of the wind tunnel experiments that are being  
20 conducted at U.C. Davis so that there can be very explicit  
21 scientific discussions regarding where the contamination  
22 goes.

23 MR. MCGRAW: Let me respond to what Pam has just  
24 said. In many respects, I agree with some of the things  
25 that she's said. We agree we have to be very careful how

1 we place these. And our original placement of our  
2 sampling stations were based on dose pathways. We had  
3 EPA's agreement -- and, Mike, you may want to chime in  
4 here -- we've identified the so-called maximally-exposed  
5 individual. And that's how we decided how to place our  
6 original samplers: Where are the people, what's the  
7 population, what's the predominant dose pathway. That's  
8 how we placed our original samplings. There was an  
9 attempt to respond to Bernd Franke. If the CMTW doesn't  
10 agree with Bernd Franke, we'll certainly take that input  
11 and consider that.

12 MS. GEORGE: Do you have robots working in the Lab?  
13 What about the people in all the buildings there? What  
14 about them?

15 MR. MCGRAW: The purpose of presenting in this kind  
16 of a forum is so that we can get your input. If you feel  
17 this isn't the right placement, that's the purpose of  
18 putting it out here. I know that, in fact, EPA does not  
19 feel that they're going to get that valuable a data  
20 relative to the Superfund listing, which -- again, let me  
21 come back to what this task force is originally about, was  
22 to help the EPA make their decision on whether we really  
23 are eligible, and if we are eligible, whether they really  
24 intend to ever list us or not.

25 MS. GEORGE: Actually, they said it was two

1 reasons. And the second reason is to see if you would  
2 characterize the site properly. So in your own criteria,  
3 this is fine.

4 MR. MCGRAW: So we're willing to take your input,  
5 Pam, if it makes sense, to put them other places or not  
6 put them there.

7 MS. SIHVOLA: What I'm requiring you to do is to  
8 run the CAP 88 model. It is very simple to do. You do it  
9 all the time. You can ask Henry to run it and show where  
10 the tritium concentrations will be, using the correct  
11 height, which is zero, for the terrain, and using the  
12 correct wind data to show -- to calculate as accurately as  
13 possible, before any of this discussion should even go on.  
14 I mean, that's what you should have presented to us to  
15 say, "Okay, we've done this, this is what the model  
16 predicts, this is where the contaminants go. They go to  
17 the hillside, they get slowed down by the grove of  
18 eucalyptus trees, they wash down with rain, and then they  
19 end up coming down through the soil into the groundwater.  
20 And as I show the groundwater plume, that's where the  
21 tritium is currently sitting."

22 And I think it would be very appropriate for you  
23 to include the known groundwater contamination, the known  
24 soil water, the extent of the soil water plume, as well as  
25 the aerial tritium plume which the CAP 88 model will give

1       you, to provide that map to the task force at the next  
2       meeting. And then we can look at placement of sampling  
3       sites based on that fundamental technical information that  
4       you have not provided to us during the past year.

5               MR. MCGRAW: Are you done? There are several  
6       different ideas in what you've said here. You've talked  
7       about the placement of the air samples in the CAP 88  
8       model, attempts to deal with air, and you've gotten into  
9       groundwater.

10              MS. SIHVOLA: No, no, no. The air is the most  
11       important. Because the CAP 88 model will show you where  
12       the tritium goes. And then the wind and the inversion and  
13       soil and the eucalyptus grove will slow down the tritium  
14       dispersion, then it goes down into the ground. But the  
15       very fundamental stage is to evaluate the direction where  
16       the tritium is blowing from the stack. That has not been  
17       presented to us.

18              MR. MCGRAW: Let me try and clarify what Pamela is  
19       saying. I need to clarify it in my own mind. And, Mike,  
20       from the EPA's point of view, I think we need your  
21       perspective. What I think I hear you saying, and I want  
22       to make sure I understand it, is you don't agree with how  
23       we've selected our supplemental sampling locations here.  
24       You would like us to go back and rework that based on CAP  
25       88 parameters, and then you would like us to also consider



1 if we're getting air wash-out, how does that affect  
2 groundwater? Is that correct?

3 MS. SIHVOLA: It's a very -- it is a very, very  
4 complicated network of lysimeters between Lawrence Hall of  
5 Science and the tritium stack. I would like Iraj to  
6 provide a Vadose zone contamination plume map in addition  
7 to the groundwater plume map that I showed, which I  
8 borrowed from his quarterly reports, and then come back to  
9 the tritium task force looking at -- okay, here is the  
10 known soil contamination, here is the known groundwater  
11 contamination, here is where the CAP 88 model predicts  
12 that the tritium will go; this is the vegetation data we  
13 have.

14 And then we look at that map, and we could all  
15 take little red dots and place them where we think creek  
16 water should be sampled, where soil possibly should be  
17 sampled and groundwater should be sampled. And we should  
18 discuss whether, at this point, shallow soil sampling is  
19 appropriate at all, if, in fact, the Tritium Labeling  
20 Facility has had such few operations, as my graph shows.

21 MS. DUFFY: Bernd had this information from you  
22 guys as well, as I understand it, is what you're talking  
23 about now.

24 MS. SIHVOLA: No.

25 MS. DUFFY: You had discussed it.

1 MS. SIHVOLA: I haven't had any discussion with  
2 Bernd Franke for half a year.

3 MR. MCGRAW: Let me just make sure I put on the  
4 table a couple of points of view on this. The soil,  
5 regardless of wash-out, is not going to help us answer the  
6 tritium Superfund listing thing because it's not the  
7 primary dose pathway. You're satisfied with that Mike,  
8 are you not?

9 MR. BANDROWSKI: Correct.

10 MR. MCGRAW: The same is true for groundwater. If  
11 you've got questions about us characterizing the total  
12 tritium at the site, that could be taken into the ongoing  
13 program for consideration. But in terms of answering this  
14 particular question relative to the tritium sampling  
15 analysis plan and the listing, that is not a dose pathway.  
16 However, I think that what you've said about location of  
17 those particular monitors, identifying more precisely or  
18 taking under consideration relocating those in areas that  
19 are closer to the stack, based on CAP 88 predictions, I'm  
20 willing to sit down with EPA and with my technical people  
21 and look at that. I'm not committing that your locations  
22 make sense. I hear you. I'm willing to look at that.  
23 But I want to make the point that the groundwater is not  
24 going to contribute to the dose, and it's not going to  
25 help answer that particular part of the question and

1       probably belongs in the ongoing program.

2               MR. HOFFMAN:  As a reminder, CAP 88 is not a  
3       regulatory compliance model.  It is not a scientific model  
4       to indicate micrometeorological effects and details about  
5       where the wind actually could go, given the complexities  
6       of this terrain.  This is why we ran the CALPUFF model,  
7       and, of course, we are doing physical modeling based on  
8       wind tunnel experiments.  So there is going to be a result  
9       from the physical model in combination with LBNL runs of  
10      CALPUFF.  I would prefer that over the use of CAP 88.

11             MS. SIHVOLA:  From a community perspective, CAP 88  
12      is a regulatory required model and you can do CALPUFF, you  
13      can do the physical modeling.  I would like you to do and  
14      provide for the community the CAP 88 runs, and providing  
15      that they are completely adjusted for the terrain as well  
16      as correct stack height and wind speed, all you have to do  
17      is make those adjustments.  They have been done in Los  
18      Alamos, and they can be done here.  And I think it would  
19      be very appropriate to have that model run, because it is  
20      so simple, and it would ease the current regulatory --

21             MS. DOUGHERTY:  I want to make sure it's noted on  
22      the record that Pamela has requested that the Lab run the  
23      CAP 88 model.  And I think it's clear.  And I appreciate  
24      your making the point.

25             MR. MCGRAW:  I want to make sure it's very clear.

1 MS. DOUGHERTY: Wait a second. We have a request  
2 and you have a response. We have listened to your  
3 argument. And I want to name that and get it out on the  
4 record that that's happened.

5 MS. SIHVOLA: The Laboratory has been using this  
6 model for ten years for compliance purposes. Why are they  
7 so uncommitting to providing a very simple run for the  
8 benefit of the community? That's all we are asking.

9 MS. DOUGHERTY: Go ahead.

10 MR. LAVELY: I am going deaf in my left ear,  
11 Pamela. Really, you've got a microphone.

12 MS. SIHVOLA: Okay.

13 MR. LAVELY: I'm deaf enough.

14 MS. DOUGHERTY: Thank you, Paul. He makes a good  
15 point. The point is please, please, please, this is a  
16 form for civil discourse. Let's remain civil.

17 MR. LAVELY: I have a question. The question I  
18 have is that Barry Parks says you can't use the model this  
19 way. Can we have Barry Parks settle it? I mean, if Barry  
20 says, "You can't use my model this very way" -- so could  
21 you ask Barry?

22 MR. HOFFMAN: I don't have to ask him. This is  
23 common knowledge among scientists who study atmospherics  
24 in complex terrain. CAP 88 is a simplified solution. It  
25 will give you wrong results for this situation. Usually

1 the wrong results err on over-estimating the air  
2 concentration to the maximally-exposed individual,  
3 especially for tritium.

4 MR. MCGRAW: Thank you. That's why I wanted to  
5 make sure it was understood when I said I'll take your  
6 input and consider it, I am not committing to tritium  
7 samples based on CAP 88.

8 MS. SIHVOLA: Why are they continuing to use it,  
9 including Los Alamos? This is very important.

10 MS. DOUGHERTY: The guys would like to speak. Sue  
11 Markland-Day.

12 MS. MARKLAND-DAY: I think we finished this  
13 conversation. But as someone who does live above the  
14 facility, I want the best use. And I am quite aware that  
15 the CALPUFF fits better in this area. I don't want it to  
16 be replaced by some trivial simplistic model.

17 MR. MCGRAW: And so we have two models that we've  
18 run. That's why we ran CALPUFF. And we try and validate  
19 them all against real sampling data. We don't have a  
20 single model for making those decisions.

21 Mike, why do we use the CAP 88?

22 MR. BANDROWSKI: Regulation.

23 MR. MCGRAW: So the answer why the DOE uses it and  
24 why we continue to use it is we use it for a vary narrow  
25 purpose, and that's the compliance part of NESHAPs. We do

1 it because we're required to do it.

2 MS. DUFFY: Pam?

3 MS. EVANS: My question got answered in the ensuing  
4 discussion.

5 MS. DUFFY: Mike, did you have something you want  
6 to say?

7 MR. BANDROWSKI: I think he said it. I agree with  
8 them. CAP 88 is not a model to use in complex terrain.  
9 So it was a model that was developed for the rating of  
10 radionuclides and NESHAPs standards to ensure compliance  
11 and simply for that purposes only.

12 MR. MCGRAW: So what we're committing to is taking  
13 your input under advisement and coming back -- let's make  
14 sure we have noted this -- coming back with a revised  
15 proposal for the location of air sampling units. We are  
16 not going to make a decision on a revised location based  
17 on CAP 88 alone.

18 MS. SIHVOLA: What are you going to present as your  
19 scientific foundation for the selection of the location of  
20 the ambient air monitors? Are you going to use the  
21 CALPUFF and the physical modeling done at Davis? I mean,  
22 we need to have some kind of a -- we have to have a  
23 rationale.

24 MR. MCGRAW: I'm not going to give you a  
25 comprehensive answer tonight because I don't have one. I

1 will give you a comprehensive answer at the next task  
2 force meeting. I will not give you a comprehensive answer  
3 off the top of my head. I won't do that.

4 MS. SIHVOLA: I mean, haven't you thought about  
5 this already from a scientific perspective? What is the  
6 rationale for placing these monitors in the air?

7 AUDIENCE COMMENT: It's to measure the minimum  
8 exposure instead of the maximum exposure. It's a  
9 deception. You're playing "tritium in a blender."

10 MR. MCGRAW: The fact is we think we've made the  
11 technical argument for where to locate the sampler.

12 MS. GEORGE: So you won't find what's there.  
13 That's the purpose of the monitor placement.

14 MR. MCGRAW: That answers your question.

15 MR. LAVELY: One of the problems I had with  
16 Franke's report, as you know, as I've told you, is I'm not  
17 sure that the number six -- that there is anything magic  
18 about the number 16. But the concern I have is that he  
19 said the 16 sectors, but he gave no indication of where  
20 within the 16 sectors to locate the monitors. If we're  
21 going to talk about --

22 MS. GEORGE: Los Angeles would be a good place.

23 MR. LAVELY: If we're going to talk about the  
24 technical basis and requirement for technical basis, then  
25 the first thing that has to happen is that Mr. Franke

1       should have to give a technical basis for 16 and tell us  
2       the locations within those 16 areas that the monitors  
3       should appear.

4               MR. MCGRAW:  We've tried to get that from Mr.  
5       Franke.  We cannot get that from him.  He hasn't been  
6       able to produce that for us.

7               MR. LAVELY:  Then what I'm hearing is a demand is  
8       being made of the Lab to provide the technical basis for  
9       every location for every monitor.  Whereas Mr. Franke,  
10      who's made the recommendation that there be 16 monitors,  
11      hasn't made any comment as to where they should be.

12              MR. MCGRAW:  His argument is this is what's done in  
13      flat terrain in sites like Savannah River, where the air  
14      dispersion is probably quite different from where we have  
15      it.  But we thought we heard a community support for  
16      Franke's position.  We are trying to be responsive to the  
17      community because we thought that by placing more monitors  
18      around the circumference, we'd be addressing fears that we  
19      were missing something.  That was the whole reason we were  
20      trying to be responsive here, is to eliminate fears, that  
21      we thought you were saying, "We're fearful if you don't  
22      have monitors around the whole circumference that you'll  
23      miss something."

24              MS. GEORGE:  We need to measure maximum exposure,  
25      not fears.



1           MR. LAVELY: David, the locations that you do  
2           select, or tentatively you're selecting, I assume that  
3           that's going to be run back through Franke.

4           MS. DUFFY: Is that right? We did three things to  
5           you at one time.

6           MR. LAVELY: I assumed that the proposed locations  
7           of the monitors and the ones that are there are going to  
8           be run back through Franke to say, "This is where they  
9           are. You asked for 16. This is where they are. You can  
10          either tell us they're in the right location, the wrong  
11          location, or additional locations where you believe there  
12          need to be monitors."

13          MR. MCGRAW: The answer to your question is yes.  
14          We don't do that directly. We do that through Owen.

15          MR. GREENHOUSE: My name is Tony Greenhouse, and  
16          I'm presumably a co-author for Bernd Franke's report. But  
17          I believe that the rationale that Bernd used for  
18          establishing the 16 sectors was, one, because CAP 88 uses  
19          16 sectors, and, two, because all other national  
20          laboratories have at least 16 environmental monitoring  
21          stations, including Los Alamos, by the way, which probably  
22          has terrain roughly similar to LBNL. So the location  
23          within the sector, I have no idea what -- you know, what  
24          should be done.

25          MR. MCGRAW: We thought we had this very well

1 characterized. I still believe we had this very well  
2 characterized. We responded because we thought that you  
3 were fearful if we didn't put it around the circumference,  
4 we were missing something. We'll go back and review  
5 whether we need to place more monitors anywhere, and if we  
6 place more, where they should be and what kind of  
7 information we need to use to establish where they should  
8 be. We'll make sure we have that dialogue with Bernd  
9 Franke through Owen, and we have EPA in for where they're  
10 located also through Mike.

11 MR. BANDROWSKI: I guess just one point that I want  
12 to be clear on is I think we're already confident that the  
13 maximum-exposed individual is located at the Lawrence Hall  
14 of Science. So the monitor that's been in place for a  
15 long period of time, where we're doing the split samples,  
16 was based on our knowledge of the terrain and the wind  
17 direction, et cetera, that we believe the maximum-exposed  
18 individual would be. And that's why we've been monitoring  
19 there. So we don't expect that there is going to need to  
20 be a lot of additional monitors in order to find a maximum  
21 exposure point. We believe we already know where that is.

22 MS. SIHVOLA: I would like to concur with that. We  
23 need to run the CALPUFF, CAP 88 and maybe the wind tunnel  
24 to have these three -- I mean, for the purposes of  
25 scientific discussion, I think we should have these three

1 different runs on the board so that we can all look at  
2 them and have a discussion and then make a selection where  
3 it would be appropriate to place these monitors. And I  
4 think, most importantly also, I think you should be really  
5 frank with us. You know that the tritium concentrations  
6 drop exponentially within 50 to 100 meters from the stack.  
7 So there is no scientific justification going anywhere  
8 outside a 200-meter -- within a 200-meter territory from  
9 the stack. So I can't believe that, but -- I mean, you  
10 are welcome to provide us some scientific justification  
11 for putting monitors outside the 150- to 200-meter radius  
12 from the stack, but I would like to hear about that.  
13 Because our information from your own data shows that the  
14 tritium concentrations drop, and the Lawrence Hall of  
15 Science is the place and the -- you know, the soil and the  
16 rain where the maximal --

17 MR. MCGRAW: We agree a hundred percent.

18 MS. SIHVOLA: So why the soil sampling? Why don't  
19 you sample anywhere except those two wind direction  
20 sectors?

21 MS. DUFFY: Is there anyone who doesn't understand  
22 Pamela's point? Is it not clear? Thanks, Pam.

23 MR. MCGRAW: Okay. Just to finish here, ambient  
24 air. What we've put in green here, is comments, but, in  
25 fact, these are comments where we don't think we need to

1 take any appropriate action because we felt the existing  
2 plan was fine, and so did the reviewers. But in the  
3 spirit of completeness, I wanted to recognize these were  
4 comments relative to the air media, so I've included them.

5 So, for example, Bernd Franke's report has said  
6 that analytical data for tritiated water in ambient air is  
7 verifiable, and the uncertainties are reasonable as we've  
8 identified them. He's also commented on tritium gas as  
9 opposed to tritiated water. He thinks it's of minor  
10 importance for the small doses in question as long as the  
11 total release is known from the silica gel data. The  
12 duration of these releases is significant. That was the  
13 concern. The effect is no greater than if the releases  
14 were continuous. So this was an EPA comment. These are  
15 comments in which we don't think any action is necessary  
16 for us to take.

17 MS. SIHVOLA: I have a question regarding number  
18 six. Can you tell us what is the amount of tritium gas  
19 that's in the stack emissions?

20 MR. MCGRAW: In the what?

21 MS. SIHVOLA: What is the percentage of HT in the  
22 stack emissions.

23 MR. MCGRAW: Do you want to answer that, Ron?

24 MR. PAUER: Right now it's about 40 percent.

25 MR. MCGRAW: Forty percent?

1 MR. PAUER: Forty percent in total.

2 MS. SIHVOLA: When has it become 40 percent?

3 MR. PAUER: It's been a gradual transition as we've  
4 been much more effective at capturing the water vapor.

5 MR. MCGRAW: We're getting more and more water  
6 vapor captured. So the proportional amount of gas is  
7 greater.

8 MS. SIHVOLA: So you are basically releasing more  
9 gas. And for everybody's benefit here at the task force,  
10 tritium gas cannot be detected by any of the ambient  
11 air monitors -- so the more tritium is let out of the  
12 stack in gas form, they will not be picked up by any of  
13 the ambient air monitors.

14 MR. MCGRAW: That's not a correct statement. Ron,  
15 can you respond? That's not a correct statement.

16 MS. SIHVOLA: We believe that's one of reasons, in  
17 addition to the fact that the tritiations have been  
18 reduced at the tritium labeling facility, more tritium is  
19 let out as gas, and they won't be picked up at the  
20 Lawrence Hall of Science monitor. It doesn't mean the  
21 tritium is not in the grove, but the monitors won't pick  
22 it up. And we feel this is, again, one aspect of the  
23 situation that is not acceptable in the community.

24 MS. DUFFY: Let's hear from someone.

25 MR. MCGRAW: Turn Ron's mike on. Will you turn

1       this mike on over here?

2               MS. DUFFY:   It's on now.

3               MR. PAUER:   I wanted to clarify that the amount of  
4       gas released has not increased.

5               MS. DOUGHERTY:  Carlos, turn my mike up, please.

6               MR. PAUER:   The amount of gas released as HT has  
7       not increased.  It's stayed the same, about ten curies out  
8       of the total.  Over the years we've reduced the amount of  
9       tritiated water vapor or HTO.

10              MS. GEORGE:   The representative of which total?

11              MR. PAUER:   So right now we're releasing about,  
12       roughly, 20 curies a year of HTO and 10 curies a year of  
13       gas as HT, roughly.

14              MS. SIHVOLA:  Can you repeat that?  Because 10  
15       curies is 50 percent of 20.

16              AUDIENCE COMMENT:  Is it detectable by the monitor?

17              MS. SIHVOLA:  I don't understand what Ron said.  
18       Would you repeat it?

19              MR. PAUER:   Roughly a third of the total, right  
20       now, is in the gas form.

21              MS. SIHVOLA:  And the total being what?

22              MR. PAUER:   The total is about 30 curies.  Twenty  
23       curies of that is the water vapor form, and ten curies of  
24       that, roughly now, is as a gas, tritium gas.  The Overhoff  
25       monitor and the stack monitor both detect the gas form and

1 the water vapor form.

2 MS. DUFFY: Did you have another -- do you have a  
3 couple more? David, Paul, go ahead.

4 MR. LAVELY: Ron and Owen, what do you think the  
5 life of HT is before it's converted to HT -- well, to  
6 water vapor in the air? Do you have that data, Ron?

7 MR. PAUER: How fast does it convert?

8 MR. LAVELY: Yes. That's the question.

9 MR. PAUER: Well, very roughly it's in terms of a  
10 few percent a day. I would say, very roughly, it kind of  
11 depends on where it goes.

12 MR. HOFFMAN: My recollection is it's a bit faster  
13 than that. But it comes to mind that one of the  
14 advantages of having air monitors some distance away from  
15 the stack is that those monitors then have the greater  
16 probability of picking up the total tritium. Because HT  
17 is gradually being converted to HTO. And at least a  
18 distant far off-site, you're having complete conversion.

19 MR. LAVELY: And the ratio of the hazard is 25,000  
20 to 1, with the lowest hazard being the HT?

21 MR. PAUER: Right. Right. But currently the Lab's  
22 assessment assumes that all released tritium would be in  
23 the form of HTO for estimated compliance with the Clean  
24 Air Act.

25 MS. SIHVOLA: In terms of the ambient air monitors,

1 I think it would be very beneficial to have a couple of  
2 real-time monitors as well that detect both HT and HTO  
3 within the eucalyptus grove. Since the ambient air  
4 monitors that we are talking about are conventional, they  
5 don't detect the HT; I think we need the real-time of  
6 Overhoff monitors in the grove.

7 MS. DUFFY: We need to finish because we're  
8 obviously going to run over time one more time. So,  
9 David, I'm sorry, you can't finish your presentation. But  
10 it does mean we'll have to go one more meeting. Go ahead,  
11 Sheryllyn.

12 MS. DOUGHERTY: Let's talk to task force members.  
13 I'd like you to gather your attention and give it to me if  
14 you can. What we need to do is we need to look at -- you  
15 guys have looked -- pardon me -- over the last few  
16 meetings you have looked at and revisions have been made  
17 to the surface water/soil/sediment plan and to the  
18 vegetation plan. And David has just shown you the  
19 proposal for the ambient air plan. And what we need to do  
20 is go through with task force members about your interest  
21 or concerns or feelings about proceeding with sampling and  
22 starting with sampling related to the EPA sampling plan.

23 MS. DUFFY: I need to clarify that too. What we  
24 talked about last time, what we heard is that we are still  
25 offering the same thing, that we move ahead with the



1 revised plan with the proviso that the door is still open  
2 to suggestion. So it's not a finished deal. So we would  
3 like people to -- we want to be clear so the same thing  
4 doesn't happen again.

5 MS. DOUGHERTY: And we appreciate that all of you  
6 have opinions. And we appreciate that it's difficult for  
7 the CMTW member to represent an opposition view totally by  
8 herself, and it's hard. And we honor that and appreciate  
9 that. But we would like to allow each of you to have a  
10 moment to speak so we could hear from everybody on the  
11 task force about going forward.

12 MR. NOLAN: Speaking in terms of just the soil,  
13 surface water and sediment plan, there obviously are  
14 issues that were raised here tonight with regard to air.  
15 Let's review on where we are in regard to soil, surface  
16 water, et cetera. That plan was discussed at the last  
17 task force meeting. There were questions in regard to  
18 sampling locations and some additional details. That  
19 information has been provided to all of us. It was sent  
20 out -- and I think we've had that for about a week. There  
21 was a lot of sentiment at the last meeting that it was  
22 appropriate to move out. We've had the modifications  
23 made. We provided that plan to the EPA. The EPA has  
24 assured us that they will try to get concurrence back to  
25 the DOE so we could conceivably approve it by the end of

1 the month. There is really no risk in moving out with  
2 that plan as long as we stay flexible about its provision  
3 and how it's implemented. It's important for the  
4 department to get the data together. We are paying a real  
5 cost here with regard to not moving towards closure and  
6 providing the information that the community really needs  
7 about what really is the situation in the environment.

8 We have an opportunity with this particular plan  
9 to move out. And we also are going to miss the critical  
10 rainy season if we don't go ahead and start getting those  
11 samples. And if we stay flexible with regard to how we do  
12 it and include the option to let people monitor that  
13 sampling program, including being physically present so  
14 the safety and liability issues can be dealt with, then I  
15 say we need to move.

16 MS. SIHVOLA: I want to say something. I have  
17 spent a lot of time looking at --

18 (Interruption from the audience.)

19 MS. DUFFY: No one is closing the door. We didn't  
20 say that.

21 MR. LAVELY: You don't need to scream.

22 MS. DUFFY: No one closed the door with that. No  
23 one said, "Pamela, you can't still comment."

24 MS. SIHVOLA: I am saying that there has not been  
25 sufficient review. There is not sufficient time, and I

1 think a lot of missing pieces are still to be provided.

2 MS. DUFFY: Your opinion is noted. And you can  
3 have an opinion.

4 MS. SIHVOLA: I would like this process to be  
5 scientific.

6 MS. DUFFY: We have a number of scientists here.

7 MS. DOUGHERTY: You need to let the other members  
8 speak.

9 MS. DUFFY: Please don't disrespect the scientific  
10 people on this panel.

11 MS. SIHVOLA: That's why I want to understand why  
12 it's such a blatant -- nobody is really acting --

13 (Interruption from the audience.)

14 MS. PACKARD: First of all, I really appreciate  
15 many of the technical kinds of questions Pamela raises,  
16 and especially appreciate it when the scientists on this  
17 committee respond. Because they both add a lot to know  
18 what to ask for and the other to expand and explain the  
19 rationale. That's really valuable to us. We're not  
20 scientists. It's very difficult when politics get into it  
21 because politics and science are very difficult to handle.  
22 So that's really confusing and not helpful.

23 I would like to suggest or go along with or  
24 recommend that the sampling plan to -- as it is today, go  
25 forward with the understanding that we all have heard many

1 times, that if the adjustments need to be made it will be  
2 made. But let's move forward. That's what I would like  
3 to suggest. And I assume we will be receiving the reports  
4 and know what is happening. I hope others will agree.

5 MS. DUFFY: Can we go around? I think everybody is  
6 going to give their opinion on it, so can we go around?  
7 And you can talk as we go along around the corner.

8 David?

9 MR. MILLER: The key word is being flexible. In  
10 other words, look on it like an emergent process. If we  
11 find any hot spots or anything like that, we could modify  
12 what we're doing.

13 MS. FISHER: I would like to see the sampling get  
14 started. But I do agree that it's very helpful to get the  
15 scientific rationale for decisions that are made. And  
16 that should be explicit.

17 MS. DUFFY: Okay.

18 MR. ROCHETTE: I hadn't heard the EPA's comment yet  
19 as to how much time they had requested for the period.

20 MR. BANDROWSKI: I'm hoping to get it completed by  
21 the end of the month.

22 MR. ROCHETTE: Did you ask for 30 days?

23 MR. BANDROWSKI: We didn't ask for a specific time  
24 frame. We have a number of different people in our QA  
25 group, our laboratory in Montgomery, Alabama, as well as

1     our Superfund and radiation groups all reviewing it. So  
2     we've provided a number of comments, and the main thing  
3     we're doing is trying to look to see that those comments  
4     are being incorporated appropriately. Depends on people's  
5     schedules, but we're hoping to get it sometime around the  
6     end of the month.

7             MR. ROCHETTE: I personally haven't reviewed this  
8     document. I don't know how thoroughly I would actually  
9     review it, because it's not actually in my bailiwick.  
10    However, I would feel uncomfortable to proceed prior to  
11    EPA's approval.

12            MS. DUFFY: That's not in the plan.

13            MR. BANDROWSKI: Our understanding of the process  
14    is the EPA will review this. Then if there is any  
15    additional comments, we'll provide that. Assuming there  
16    aren't, we'll let the Department of Energy know that the  
17    plan, if it's implemented the way it's provided to us,  
18    will give us the answers to the questions we've asked DOE  
19    to provide.

20            MR. NOLAN: The department can't proceed to approve  
21    the plan until we get EPA's concurrence. We expect that,  
22    reasonably, by the end of the month.

23            MR. ROCHETTE: I would feel comfortable with the  
24    plan moving forward when EPA had approved it. I wouldn't  
25    want to hold it up from the Water Board's perspective on

1       our view, but I would certainly feel that the -- the  
2       beginning of the sampling plan should be subsequent to  
3       EPA's review and approval of the changes.

4               MS. DUFFY: I think you probably missed that part  
5       of it. That is an assumption, that it has to go through  
6       them first. That's what we're proposing.

7               MR. ROCHETTE: I just wanted to verify that that's  
8       the case.

9               MS. DUFFY: In case it's not clear to anyone.

10              MR. NOLAN: And the dates are coincidental, because  
11       the planned sample initiation for soil, surface water and  
12       sediment, and vegetation is the first of the month, the  
13       1st of February, so we could capture the rainy season.  
14       And if we could get EPA's concurrence by then, then we  
15       could move out on schedule.

16              MR. ROCHETTE: That would be once you have EPA's  
17       concurrence?

18              MR. NOLAN: Yes.

19              MR. ROCHETTE: Geoff, I didn't know if you were  
20       planning to make comments. So I just --

21              MS. DUFFY: Geoff?

22              MR. FIEDLER: I think the City has been on board  
23       and planning to go forward with some sampling. There have  
24       been some questions, technical questions, about the --  
25       about the surface water sampling program, but --

1 MS. DUFFY: The ongoing one or the actual sampling  
2 Task Force --

3 MR. FIEDLER: This one. This is the -- this is not  
4 the ongoing.

5 MR. MCGRAW: We're with the ongoing --

6 MR. FIEDLER: Right. I think we sent some  
7 questions up, but I'm not sure where we are with that.

8 MR. MCGRAW: In the ongoing one, not the Superfund.

9 MS. DUFFY: Right. It's in the ongoing. You could  
10 clarify that.

11 MR. FIEDLER: It's comments about this program,  
12 because they were generated, and -- the comments that I  
13 had sent in before I thought there were comments --

14 MR. MCGRAW: We'll have to run that by Ron, because  
15 Ron says he does not have the comments on the tritium  
16 sampling and the analysis plan in that media from the  
17 City.

18 MS. DUFFY: We can certainly run that down. But  
19 you should have it on the ongoing.

20 MR. MCGRAW: Yes.

21 MR. FIEDLER: I'm just not sure where that went.  
22 So I think we're ready to move forward. And even -- I  
23 mean, we just had some questions about this program, about  
24 how it was done. I don't think we have objections to  
25 what's proposed, just some clarifications, and also a

1       rationale. I mean, that's as far as we've been on that.

2               MS. SIHVOLA: I had contacted Ginny Lackner, and  
3       she called me back last week. I had requested Ginny to  
4       put three rain gauges into the grove between the stack and  
5       the Lawrence Hall of Science. And her response to me was  
6       that it is too expensive. And I said, "Well, you must  
7       have three rain gauges in your office, since you were in  
8       charge of the rainwater monitoring program."

9               And she said, "No, it's too -- the analysis of the  
10       rain samples is too expensive." And that's the reason why  
11       I showed the soil sampling map and how over 60 percent of  
12       the proposed soil samples are outside the area of known  
13       contamination. And I would like to be on record asking  
14       LBNL tomorrow, put three rain gauges along the fence line  
15       between the stack and Lawrence Hall of Science so that we  
16       could start sampling rainwater. That is crucial. That is  
17       very, very important. The rainy season is very limited  
18       and will be here only for two or three months, and the  
19       rain needs to be monitored around the stack.

20               And I wanted to record my dismay for her saying  
21       that it would be too expensive to implement. So do I have  
22       your word that there will be three rain gauges in the  
23       grove between the stack and the Lawrence Hall of Science?

24               MR. MCGRAW: So I can clarify what Pam is talking  
25       about, I believe what she's talking about is the ongoing



1 sampling program. Ron Pauer has just whispered in my ear  
2 that, in fact, we are looking at where the appropriate  
3 location for the samplers should be. But that is not the  
4 tritium sampling and analysis plan, the question on the  
5 table. And we would like to move forward.

6 MS. SIHVOLA: I want it to be -- because it is the  
7 tritium in the rain which will impact the soil, which will  
8 impact the groundwater, this is very, very crucial. And I  
9 would like it to be part of this very --

10 MR. MCGRAW: What you have heard me say, Pamela, is  
11 that Ron Pauer, who is my technical lead for all  
12 environmental sampling, who runs the program, he has heard  
13 you. He is looking into where the appropriate location of  
14 these samplers should be. And he'll work with you.

15 MS. GEORGE: What day were they going to go into  
16 the grove? What day?

17 MS. SIHVOLA: The very fact that -- I also need  
18 your word for this, David McGraw. The Task Force needs to  
19 know in advance the dates of use of tritiation at the  
20 tritium labeling facility so that we could be guaranteed  
21 that the facility is not, you know, being -- standing  
22 still while the sampling is ongoing.

23 MR. MCGRAW: Let me respond to that for the whole  
24 Task Force. What I would like to put on the table is I  
25 hear the concerns and the uncertainty that's been raised

1       about whether, in fact, our emissions are only down  
2       because we've got no activity in the facility. What I  
3       would like to propose is that we constantly share with you  
4       the emissions data. And we'll find a way to put that  
5       either on the Web or a suitably convenient way to share  
6       that with you. And if it goes up, I will further commit  
7       that if those emissions go up, we will do some enhanced  
8       sampling and identify why that is happening. What I can't  
9       commit is that I will identify tritiations in advance.  
10      That's just not how science there works.

11               MS. GEORGE: Why not?

12               MS. SIHVOLA: I think that needs to be absolutely  
13      provided to us. And in terms of the monitoring data that  
14      you are going to put on the Web, I would like you to put  
15      the Overhoff real-time monitoring data, and I would like  
16      there to be a monitor at Lawrence Hall of Science so that  
17      at any time all of the visitors can at any point go and  
18      look at the monitor and see what it is.

19                               (Interruption from the audience.)

20               MS. GEORGE: Give us one good reason, David. One  
21      good reason.

22               MS. DOUGHERTY: This is so rude of you.

23               MR. LAVELY: I want to make sure I understand it  
24      this time, because I didn't understand it last time. What  
25      is it exactly that we're agreeing to? We're agreeing to

1 move forward to what we've got in the package?

2 MS. DUFFY: That's right.

3 MR. LAVELY: Let's push the EPA to approve it.

4 MS. DUFFY: Do you want to say anything else, Paul?

5 MR. LAVELY: Other than that Ron has contacted us  
6 since we share that boundary, we're working together to  
7 get the rain gauges installed.

8 MS. DOUGHERTY: So you're working on that already?

9 MS. DUFFY: You're working with the Lab on that?

10 MR. LAVELY: Yes. It's not as simple as it sounds.

11 MR. BAILEY: Subject to EPA approving the plan  
12 under Superfund, I think once EPA approves it, we should  
13 go forward with the sampling.

14 MS. DUFFY: Mike?

15 MR. BANDROWSKI: I'm not sure I have anything to  
16 add, other than that we'll be reviewing it as quickly as  
17 we can, and we will get any comments we have, if we have  
18 any. If not, we'll concur on it and let DOE know. And  
19 they'll be able to move forward.

20 MS. GEORGE: And will you let us know when you've  
21 rubber-stamped it?

22 MS. DUFFY: Pam?

23 MS. EVANS: Yeah. I guess some of what I would  
24 like to say is that all of us who are either on the Task  
25 Force or in the audience as an interested party should

1       then commit to taking a look at these revised plans and  
2       getting back. But I guess my question is what would be  
3       the most efficient way to get these comments back to the  
4       appropriate person.

5               MS. DUFFY: How would you like to receive the  
6       comments?

7               MR. MCGRAW: I would like to receive all comments  
8       in written form, and I would like those comments addressed  
9       to Ron Pauer. And his title is Head of the Environmental  
10      Monitoring Program.

11              MS. DUFFY: And the address is on the --

12              MR. MCGRAW: His mail stop is Building 75B-101,  
13      Lawrence Berkeley Laboratory, Berkeley 94720.

14              MS. DUFFY: Can we post that address on the Web?  
15      Let me clarify, Pam. You're saying at this point a "yea"  
16      or "nay" on moving on with the proviso that people can  
17      still comment on it pending EPA approval?

18              MS. GEORGE: No one has seen the revised plan, but  
19      we're moving forward because we are taking a leap of faith  
20      with David. Let's leap forward off the cliff.

21              MS. EVANS: Just to clarify what my comments were  
22      about, I think we should just all shoot for the end of  
23      January in terms of getting our comments back on the plan.  
24      And those comments from some of us may be forget the whole  
25      plan. From some of us, they may be specific comments on

1 elements of the plan. But whatever they are, they should  
2 be in to Ron Pauer by the end of the month.

3 MS. DUFFY: Sue?

4 MS. MARKLAND-DAY: In the many years that I've  
5 worked in areas that involve EPA, I must say I would  
6 consider them a fairly picky group. So I feel very  
7 comfortable to go ahead with the EPA, with the plan.  
8 David, we know where you are.

9 MR. MATTHEWS: No, no. Just move forward.

10 MR. WOOD: No sense in commenting on the commentary  
11 on how little contribution some people have made.

12 MS. DOUGHERTY: That is so unnecessary. Please, it  
13 was an attack. Please don't do that.

14 Are you done?

15 MR. MATTHEWS: I'm done.

16 MS. DOUGHERTY: Thank you. We have public comment  
17 for ten minutes. Will you talk for a moment about the  
18 next meeting?

19 MS. DUFFY: I think it is important to note that  
20 when EPA responds, if they respond before the next  
21 meeting, Task Force members need to know that, I think.  
22 So how are we going to talk to all of you? I mean --

23 MS. DOUGHERTY: Do you want phone, e-mail?

24 MR. NOLAN: We could post it on the Website.

25 MR. BANDROWSKI: We'll certainly respond in

1 writing. And, you know, we could send it to DOE, and DOE  
2 can post it or send it to all of you.

3 MR. NOLAN: Or you can copy it to all Task Force  
4 members.

5 MR. BANDROWSKI: How big a document will it be?

6 MR. NOLAN: Just one page, I suspect.

7 MS. DUFFY: As soon as it's approved, the Task  
8 Force members will find out about it.

9 MS. MARKLAND-DAY: It will be actively sent to us  
10 as opposed to passively.

11 MS. DUFFY: That's a good point. We'll do both.

12 MS. SIHVOLA: I have a question. At what point is  
13 EPA looking at the air monitoring? I mean, why does this  
14 plan have to be piecemeal? Why can it not be reviewed as  
15 a whole, you know, holistic way, as one complete plan  
16 without rushing with one matter -- the most important  
17 aspect is the air monitoring and the air dispersion. And  
18 we need to have some foundation based on the air  
19 dispersion of where to locate the soil sampling places as  
20 well as, you know, which creeks they came from.

21 MS. DUFFY: Do you have a problem with doing it one  
22 at a time?

23 MS. SIHVOLA: I was asking why not provide the  
24 whole plan to EPA? How come you do it piecemeal?

25 MS. DOUGHERTY: Evelyn Fisher has a comment.

1 MS. FISHER: It seemed to me at the last meeting,  
2 Pam, you were concerned about missing the rainy season if  
3 we don't get sampling.

4 MS. SIHVOLA: He said we were not going to sample  
5 the rain. We are doing it outside. And he is refusing to  
6 include the rain sampling in this sampling plan. It is a  
7 very important point.

8 MS. DOUGHERTY: Do you want to respond to Pamela?

9 MS. SIHVOLA: I explained to her exactly that the  
10 rain measuring is very, very important.

11 MS. DOUGHERTY: What I need to do now is we need to  
12 calendar. Could you please open your diaries and  
13 calendars, whatever you're carrying? That's a six-week  
14 date from today's date, which puts us at February 28th,  
15 which is a Wednesday. Does anybody have an objection  
16 to -- Paul. Okay.

17 MR. LAVELY: You're not getting through your  
18 agendas now. Six weeks is too long.

19 MS. DUFFY: Thank you for the comment.

20 MS. DOUGHERTY: David, I need you to reflect that  
21 back to the Lab. Because you guys have -- getting reviews  
22 is the only thing.

23 MR. MCGRAW: I don't have a problem with the 28th  
24 date. I know Paul's concern is urgency. Let's get moving  
25 on. I think there is also the issue of getting the work

1       done internally too. If you want to move it up earlier by  
2       a couple of weeks, I don't have a problem with that  
3       either. Any sooner than that isn't fair to the staff.

4               MS. DOUGHERTY: 21st is the first available time.  
5       How about the 21st of February? Sue will not be here.  
6       What about the 22nd of February?

7               MS. MARKLAND-DAY: I won't be here that whole week.

8               MS. DOUGHERTY: Does anybody else have a conflict  
9       on the 21st, the 22nd?

10              MS. DUFFY: Who has the conflict with the 28th?

11              MS. DOUGHERTY: Are you the only person that has a  
12       conflict?

13              MS. MARKLAND-DAY: I'll be here.

14              MS. DOUGHERTY: I think six weeks is a reasonable  
15       -- seems to be a reasonable time frame. I want to note  
16       that Paul made an objection to that, and I think that's in  
17       the record.

18              MS. DUFFY: I think it's always a dilemma. I wish  
19       we could get it earlier. Do you think the EPA will be  
20       ready earlier than that so we could call on that?

21              MR. BANDROWSKI: Looks like we're not available on  
22       the 28th.

23              MS. DOUGHERTY: Let's go back to the 21st. What  
24       day of the week is that? That's Wednesday, Thursday. Can  
25       we do the 22nd?



1 MS. SIHVOLA: It's President's Day. Everybody is  
2 gone.

3 MS. DUFFY: Nobody is going to be gone Wednesday or  
4 Thursday, so we could do the 21st. Okay. Let's do the  
5 21st.

6 MS. DOUGHERTY: The 21st of February. Location to  
7 be determined. That's five weeks, as I have it in my  
8 calendar.

9 MS. DUFFY: So I clarified that people need to have  
10 the comments in by January 30th -- actually by the 28th,  
11 and that EPA will let people know and go from there.

12 MS. SIHVOLA: You mean January 31st?

13 MS. DOUGHERTY: Thank you, Pam. So people need to  
14 have their comments in so they can be passed on for  
15 feedback. We also have agreed to the 21st of February,  
16 which is the next meeting date. If nobody has any other  
17 specific issues for this meeting, I would like us to  
18 move -- I'm sorry. Mike.

19 MR. ROCHETTE: I just wanted to clarify one more.  
20 I'm sorry. I'm failing in my right ear a little bit, but  
21 from EPA, are you going to be able to include the members  
22 of the Task Force on a CC list? How do you propose to  
23 send the comments and distribute them to all the members?

24 MS. DOUGHERTY: Sure. Michael could you give your  
25 address to the facilitators?

1 MR. BANDROWSKI: Give me your address.

2 MS. DOUGHERTY: So I would like to have Jeanne draw  
3 the names. And Jeanne has probably done that. We have  
4 ten minutes for public comment. And I thank you, Task  
5 Force members, for your time and your patience.

6 MS. DUFFY: Paul, do you think we're clear? I'm  
7 using you as a barometer here. Do you think that people  
8 are clear that the door is still open to comment? People  
9 need to make comments, but with the EPA approval, we are  
10 moving on the with the sample thing. Is that clear? I  
11 want Paul to respond.

12 MR. LAVELY: As I understand you --

13 MS. DOUGHERTY: Say it one more time.

14 MR. LAVELY: If I understand this, is that you kept  
15 it open for anyone on the panel to make comments  
16 individually or as a group, and you've invited comments  
17 from the members of the public, either in writing or by  
18 e-mail on the Website. The only thing is that it's very  
19 difficult to do them in an oral presentation.

20 MS. DOUGHERTY: Fran?

21 MS. PACKARD: My understanding is that these  
22 comments are of an informal order, and they would -- the  
23 plan would be in effect and be worked, and then if these  
24 comments came along and somebody said, "Whoops," or the  
25 data that came in said, "Oh, my God," then you do

1 something. But these are not formal technical comments in  
2 the standard sense that that's used. Is that correct?

3 MS. SIHVOLA: This is absolutely wrong. I think  
4 all comments should be formal and technical, and they  
5 should be of knowledge, and there should be a discussion.

6 MS. PACKARD: I agree that they should be formal,  
7 and that's not that what I'm saying. They may or may not  
8 be implemented. I mean, a comment is like a suggestion.  
9 And it may be a terrific suggestion, vital, necessary, or  
10 it may not. It should be addressed. But in the meantime,  
11 these are not the formal kind of comment in the  
12 public-comment sense of holding up a plan. I mean, this  
13 plan that we have, to say, "Go ahead," so as soon as the  
14 EPA has --

15 MR. NOLAN: Let me try to clarify where we are.  
16 The Task Force is saying, "Move forward with the sampling  
17 plan that is in front of the Task Force now, pending the  
18 concurrence by EPA and approval by DOE." What we are also  
19 saying is we are going to stay flexible with regard to how  
20 that plan is implemented. And it would be subject to  
21 additional comment that should, as appropriate, be  
22 formalized, be submitted through the regular channels, so  
23 those comments could be responded to and, as appropriate,  
24 the plan should be adjustable, flexibly changed as it  
25 moves forward.

1 MS. SIHVOLA: How are you going to do that?

2 MS. DUFFY: Go ahead, David.

3 MR. MCGRAW: I don't think it's reasonable -- I  
4 want to make sure we're being very up-front. We will log  
5 in every comment, as we've done here.

6 MS. GEORGE: And ignore it as you've done here.

7 MR. MCGRAW: And acknowledge every comment. If the  
8 comment points out significant deficiencies to the plan,  
9 we'll modify it in the plan in consultation with EPA and  
10 DOE to make sure it meets their needs. I will not commit  
11 tonight to giving a formal written response to every  
12 comment. I simply can't commit to that given workload  
13 constrictions. I will log every comment and acknowledge  
14 it's been received. I will not formally commit tonight to  
15 give every comment a written response. I want to make  
16 sure I'm clear.

17 MS. DOUGHERTY: I'd like to go ahead and start the  
18 public comments. Some of them have spoken tonight through  
19 the meeting. Jeanne, if you have the three names. I  
20 thank the task force members for your time and your  
21 patience. I appreciate that this is a very difficult  
22 process. Thank you.

23 MS. GERSTLE: The first one is LA Wood, Barbara  
24 George, Gene Bernardi.

25 MR. WOOD: I think this group is missing when Pam

1 Sihvola stands up here and talks to you about putting the  
2 cart before the horse, particularly in this sampling plan  
3 here, where she's saying to you where is the logic of  
4 putting on a sampling plan and moving forward with that  
5 sampling plan and then asking people to catch up and to  
6 incorporate their ideas. Sampling plans are expensive;  
7 monitoring is expensive; decisions are expensive. And  
8 when those decisions are made, there is no going back.  
9 And I'm very, very troubled because what Pam was trying to  
10 suggest to you is that if you were to look at the soil and  
11 the groundwater, then that's an indicator to you as to  
12 where the contamination is. And certainly that is where  
13 you put your monitors. I know that Bernd Franke never  
14 ever suggested that you put monitors out at 2 miles or  
15 even a mile away from the facility. That is absurd. And  
16 I think what Pamela Sihvola is saying is that we need to  
17 pull in the line, pull in the circumference, bring it back  
18 down -- I know within 300 meters, Pamela is saying 150 --  
19 and, that's probably more realistic.

20 And if you look beyond that, if you look around it  
21 and if you move forward with the sampling plan for soil,  
22 for surface soil, when you know that you are not going to  
23 find tritium there, I think those are real dishonest and  
24 that you're moving in a smokescreen. And what we would  
25 like to see happen is something different. We want

1 something more comprehensive. Again, when people like  
2 ourselves, lay people, look at this project, look at the  
3 way that it's laid out, it's illogical.

4 And also for my final comment, I have mentioned to  
5 Keith from the City of Oakland, I've been a part of this  
6 process for a long time. I recognize a lot of the faces  
7 here. I've made comments to many people who have  
8 participated because of my disappointment in the fact  
9 that -- not that I'm not participating, but the fact that  
10 many who sit at the table participate in a very, very  
11 incomplete way. Where is COPE? That was the other  
12 adversarial group. The last time we came to a meeting in  
13 November, if you paid attention you saw the consultants  
14 for this activity attack Pamela Sihvola in a very, very  
15 negative way. I made a point to that. They acknowledged  
16 it and backed off. But that's the kind of process that  
17 you created. So you can leave people like myself with  
18 nothing less than being angry at the process. You have  
19 not created an opportunity for community involvement, as  
20 you can see. And you've kept many of us from the table,  
21 and you've kept the process blinded, running sideways and  
22 not running straight at the issue. If you would just  
23 focus in on the groundwater plume and look at that and  
24 look at that particular area, you would solve a lot of  
25 problems.

1           As Pamela said, it's wasting taxpayer's dollars to  
2   do anything else. Where is the technical verification for  
3   what you're doing? I'm asking that as a citizen. I'm  
4   looking for it and I don't see it because Bernd Franke  
5   said it is not good enough. Because, as you say, he  
6   didn't articulate that. I'm looking to EPA to answer that  
7   question, and we'll be asking those people back east the  
8   same question. Thank you.

9           MS. GEORGE: Irmi asked me to mention the fact that  
10   no one addressed the paper that was given earlier by  
11   Marion Fulk, about blood-testing, and there has also been  
12   no response to Pamela's presentation here. Well, I was  
13   thinking about jumping around like a kangaroo, because --  
14   since this is a Kangaroo Court process. I think this is  
15   really worthy of the kind of show trial and railroad  
16   process that people associate with totalitarian society.  
17   And that's basically what we've got here. We've got the  
18   DOE, the radiation community, so-called, I mean, it's a  
19   perversion of the word "community," but the radiation  
20   purveyors in the world are a totalitarian society. And  
21   that is what we've been seeing here. I think it's really  
22   pitiful to be going along with them. I mean, part of me  
23   just wants to laugh. Because here they have a process  
24   where they have had a tritium sampling plan. They've been  
25   putting it out there for almost two years, I guess

1 earlier, and now it's another year. And they just can't  
2 seem to get it right. They can't seem to come up with  
3 something that's going to show where the tritium is.

4           Isn't that amazing? Has anybody noticed that?  
5 You know, I mean, I think it's really so sad and sickening  
6 that this is the kind of thing that we sit around doing  
7 month after month with Mr. McGraw and company and all of  
8 his hand-picked task force. Yeah, it's business as usual.  
9 That's for sure. You can't just go out there and put rain  
10 gauges all up and down the fence line; you have to make  
11 sure you can put them where they won't find anything.  
12 That's the way it's been. That's the way this whole  
13 process is working, is let's not find what's there. And  
14 it's just a really, really sickening and upsetting  
15 process.

16                   (Disruption in the audience)  
17                   (Whereupon the proceedings were  
18 adjourned at 9:32 p.m.)

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REPORTER'S CERTIFICATE

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I, Joanna Filds, Certified Shorthand Reporter No.  
10959 in and for the State of California, hereby certify  
that the foregoing is a full, true and correct transcript  
of the proceedings to the best of my ability.

Date: \_\_\_\_\_

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Joanna Filds CSR # 10959



3/1 Comment from Carl Schwab to 1/17 Transcript..

I don't know if there's anything that can be done now, but it would be nice to have the transcript reflect the comments from Ms. Rodriguez during Barbara George's public comment period at the very end of the meeting. As you will recall, her vitriolic statements were the reason that the facilitators adjourned the meeting (and I believe that the total time allowed for public comment had also run out). I heard her comments clearly and it seems that the tape recorder would have picked them up also. I think it is important to have the official record reflect how the meeting came to be adjourned so abruptly, especially since some members of the Task Force were unhappy that the meeting was adjourned this way.

(Owen Hoffman) submitted the following comments to the Environmental Sampling Project Task Force:

Thu Feb 15 11:13:03 US/Pacific 2001

Comments:

I do have a recommended correction of a single typo on page 75.....

On page 75, line 2, please eliminate the word "not".

As a point of clarification: CAP 88 is a computer code that is used exclusively for establishing compliance with NESHAPS for emissions of radioactivity. It is not sensitive to the effects of complex terrain and will produce misleading results in terms of predicting actual concentrations of downwind tritium concentrations.

Usually the bias in the use of CAP 88 will be to produce values that overestimate true downwind concentrations. This has been confirmed in our May 2000 report to LBNL (Radonjic et. al. 2000).

Ron Kolb Comments:

At the January 17, 2001 task force meeting, Berkeley Lab announced that it will remove an aboveground, hillside stack that has been the source of tritium emissions, and replace it with a small, rooftop stack at the National Tritium Labeling Facility. Please click on the press release to read more about this.

<http://www.lbl.gov/Science-Articles/Archive/tritium-stack-removal.html>



## research news

# Improvements Announced At Lab's National Tritium Labeling Facility

Ron Kolb, [rrkolb@lbl.gov](mailto:rrkolb@lbl.gov)

news releases

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**BERKELEY, CA** — Lawrence Berkeley National Laboratory will complete improvements in ventilation and exhaust systems at its National Tritium Labeling Facility (NTLF) this year, leading to reduced energy consumption and improved worker safety.

The new efficiencies, combined with a 10-fold decrease in tritium emissions achieved over the past 10 years, will render the present high-capacity exhaust system -- including a 28-foot-high emissions stack -- unnecessary. The stack will be removed as part of the renovation work and a new, smaller stack will be installed on the roof of the building that houses the NTLF.

Electricity saved as a result of the modifications is expected to equal the power required by about eight standard houses. Significant natural gas savings are also anticipated.

Berkeley Lab officials made the announcement at the January 17 meeting of the Environmental Sampling Project Task Force, a committee of diverse community representatives who are advising the laboratory on a proposed tritium sampling plan. Some task force and community members have recommended that the Laboratory remove the stack from the hillside adjacent to the NTLF.

"This action will update and improve air circulation systems, making an already safe facility even safer, and more energy-efficient," David McGraw, Director of the Environmental Health and Safety Division, told the task force. "As a result, the larger exhaust stack will be unnecessary, and its removal will allow us to also be responsive to citizen interests."

Air will be vented in the future through a smaller stack on the roof of the NTLF, which is about 130 feet further away from the closest off-site receptor than the existing stack.

McGraw told community members that, even though tritium emissions are already minute and far below maximum levels permitted for public safety, preliminary air dispersion modeling indicates a probable reduction in radiation doses to the maximally exposed individual resulting from the changes. And he assured them, "These improvements will not result in any increase in emissions or in facility activity."

Laboratory and independent assessments over the last five years have showed that the annual public dose from tritium emissions at the NTLF is less than one percent of the public health standard for air established by the Environmental Protection Agency

(EPA) for facilities of its type.

In 1999, the most recent year for which official numbers are available, NTLF emissions resulted in a maximum potential radiation dose to an off-site individual of less than 0.1 millirem. That is less than 1 percent of the EPA's National Emission Standards for Hazardous Air Pollutants (NESHAPS) public health limit of 10 millirems per year.

The facility renovations, which include upgrades to air circulation and supply systems, temperature and pressure controls, refrigeration, and fume hoods, are due for completion by October 1.

Berkeley Lab has been working since the mid-1970s, and especially over the last 10 years, to reduce tritium emissions even further through adjustments to hardware and processes. These improvements have included a larger silica gel tritium capture system, tritium and air recycling, prompt packaging and storing of waste, newer labeling tools and methodology, emissions control hardware, improved monitoring, and safety peer reviews. Additional modifications for further reductions are being studied.

Responding to citizen requests, the EPA has asked the Laboratory to gather additional data for reevaluation as a potential priority environmental clean-up site. The task force was set up to expedite the collection of data through an environmental sampling plan. A draft plan is being discussed by the committee and should be ready for implementation this year.

Laboratory officials believe that the data, once collected, will verify prior independent health assessments that have concluded the tritium emissions pose no danger to public or environmental health and safety. EPA officials have stated it is unlikely that Berkeley Lab will be added to the agency's National Priority List.

The National Tritium Labeling Facility was established as a National Institutes of Health resource center in 1982. Its role is to conduct research, to help biomedical researchers study cell metabolism, and to test new products that can be useful in curing disease. Facility staff and visiting researchers "label" pharmaceuticals and other materials with tritium, a radioactive form of hydrogen, in order to trace their behavior in various media. The NTLF is unique in the United States as it provides the technology to do labeling and analysis at the same location.

Berkeley Lab is a U.S. Department of Energy laboratory located in Berkeley, California. It conducts unclassified scientific research and is managed by the University of California.